DX 10464

To: Elizabeth Holmes[eholmes@theranos.com]
Cc: Sunny Balwani[sbalwani@theranos.com]; Christian Holmes[cholmes@theranos.com]
From: Daniel Edlin
Sent: Sat 6/8/2013 10:44:16 PM
Importance: Normal
Subject: Updated Presentation Deck Template
Received: Sat 6/8/2013 10:44:25 PM
Theranos_Presentation_Template_June2013.ppt

Hi Elizabeth,

Please find attached the updated presentation deck template including only those slides that you've focused on/spoken to in recent presentations. Let us know if you'd like to see any slides removed or added back in.

Saved here: J:\Product Management - Commercial\Presentations\Template\Theranos_Presentation_Template_June2013.ppt

Thanks,

Dan

File Produced in Native Format

theranos

INSERT PARTNER/AUDIENCE LOGO

INSERT DATE

Contents

theranos

the lab test, reinvented.

same tests.
smaller sample.

theranos

theranos

Theranos, Inc.

Theranos is a Silicon Valley-based healthcare technology company founded in 2003.

Theranos' proprietary, patented technology runs comprehensive blood tests from a finger-stick and tests from micro-samples of other matrices in real-time outside of traditional lab settings and generates significantly higher integrity data than currently possible.

Our current and past clients include 10 of the top 15 major pharmaceutical companies, midsized bio-pharmas, prominent research institutions, healthcare payors, and U.S. and foreign government health and military organizations.

Contents

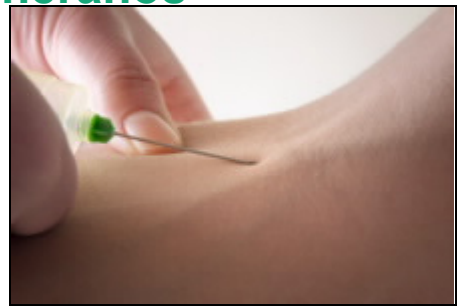
theranos

Transforming the Clinical Lab

Check-In → Prep & Perform Finger Stick → Collect Biometrics → Close-Out

Lab Today

Theranos



Finger-stick tests **reduce volumes of blood** draws **by 99%**

Major impact on **patient experience**: pediatrics, geriatrics, oncology, etc.

theranos

Excerpts from Theranos' Test Menu

*105 tests shown, another 20+ pages show all available tests with Theranos

Bacteria

Streptococcus pneumoniae (penic R(24%),S)
Mycoplasma pneumoniae
Chlamydia pneumoniae
Bordetella pertussis
Haemophilus influenzae (ampic R,S)
Moraxella catarrhalis
Staphylococcus aureus (MR (30%), RS)
Streptococcus pyogenes (A)
Streptococcus agalactiae (B)
Pseudomonas spp (aeruginosa)
Haemophilus parainfluenzae
Enterobacteriaceae spp
Legionella spp
gram-negative bacteria
Escherichia coli

Viral

H5N1, H1N1
H3N2, Infl. B
Rhino Virus
Adenovirus
RSV
parainfluenza virus (1,2,3,4)
Coronaviruses
human metapneumovirus (HMPV)

Complete Blood Count w Diff

White blood cell count
Red blood cell count
Hemoglobin
Hematocrit
Mean corpuscular volume
Mean corpuscular hemoglobin
Mean corpuscular hemoglobin concentration
Platelet count
Mean platelet volume

Renal Panel

Albumin
BUN
Calcium
CO2
Chloride
Glucose
Phosphorous
Potassium
Sodium
Creatinine
eGFR

Liver Panel

ALT
Alkaline Phosphatase
AST
Ferritin
GGT
Iron
Lactate Dehydrogenase
Microalbumin
Total Protein
Albumin
Globulin
Bilirubin Direct
Bilirubin Total

Thyroid Panel

TSH
T-3
T-4

Complete Metabolic Panel

HGB A1c
Glucose
Calcium
Albumin
Total Protein
Sodium
Potassium
CO2
Chloride
BUN
Creatinine
ALP
ALT
AST
Bilirubin
Magnesium

Ipecac
Lsd,
Lsd-25,
Lysergide,
Nalbuphine
Nubain{R}
Rohipnolâ®
Stadolâ®
Ethyl Glucuronide,

Cardiovascular Panel

Creatinine
Kinase
Troponin-I
Troponin-t
CRP- High-Sensitivity & LS
Homocysteine

Lipid Profile & Glucose Panel

Cholesterol
HDL
LDL
LDL/HDL Ratio
Triglycerides
VLDL

STDs & Drugs of Abuse

Chylmd Trach, Dna, Amp Probe
N.Gonorrhoeae, Dna, Amp Prob
Hpv, Dna, Amp Probe
Acid
Butorphanol
D-Lysergicacid Diethylamide,
Dolophine,
Flunitrazepam
Hairstat
Heroin,

theranos

Theranos is certified as a High Complexity CLIA Laboratory

Waived	Simple, accurate tests without routine oversight
Moderate	Most tests fall in this category; automated testing where the lab must meet standards and surveyed biennially
PPM	Provider performed microscopy; the lab must meet quality standards; no routine oversight
High Complexity	Requires the highest level of training, technique and result interpretation; most stringent standards; labs are surveyed routinely and randomly

State of California Department of Public Health

CLINICAL LABORATORY LICENSE

In accordance with the provisions of Chapter 3, Division 2 of the Business and Professions Code, the persons named below are hereby issued a license authorizing operation of a clinical laboratory at the indicated address or other site(s) on file with the department.

THERANOS, INC.
1001 EAST MEADOW CIRCLE
PALO ALTO CA 94303-4231

OWNER(S):
THERANOS, INC.

DIRECTOR(S):
ARNOLD B. GELB MD
SPENCER HIRAKI PHD

Lab ID Number: CLF 00341367
Effective Date: June 15, 2012
Valid Until: June 14, 2013
CLIA Number: 05D2025714

Beatrice R. O'Keefe, Division Chief
Laboratory Field Services

theranos

Validation of Theranos

Theranos has been comprehensively validated over the course of the last seven years by ten of the fifteen largest pharmaceutical companies, with hundreds of thousands of assays processed.

After running clinical trials with Theranos instead of the central laboratory, GlaxoSmithKline's Lab Director concluded that **"Theranos' lab infrastructure eliminates the need for a lab."**

Theranos' lab infrastructure is validated under FDA, ICH, and World Health Organization guidelines.

Excerpts from Johns Hopkins due diligence and technology validation:

- "The technology is novel and sound. It can accurately run a wide range of routine and special assays."
- **"No major weaknesses were identified."**

JOHNS HOPKINS MEDICINE

theranos

Theranos Information Systems

Theranos Information Systems facilitate real-time eligibility, authorization, authentication, information transmission, and billing

All data is transmitted to physicians through a secure customized portal, secure fax, and/or integration with EMR/LIS systems

Theranos Patient Service Centers

SAFEWAY Walgreens

Theranos' Footprint at retail:

Theranos patient service centers are located within a smaller radius from the patient than currently available

Theranos has more patient service centers than any lab provider in CA

Convenience is offered at an unprecedented value

	1 mile	3 miles	5 miles
theranos	> 95%		
Quest Diagnostics	7%	35%	56%
LabCorp	9%	45%	69%

theranos

Theranos Sites

theranos

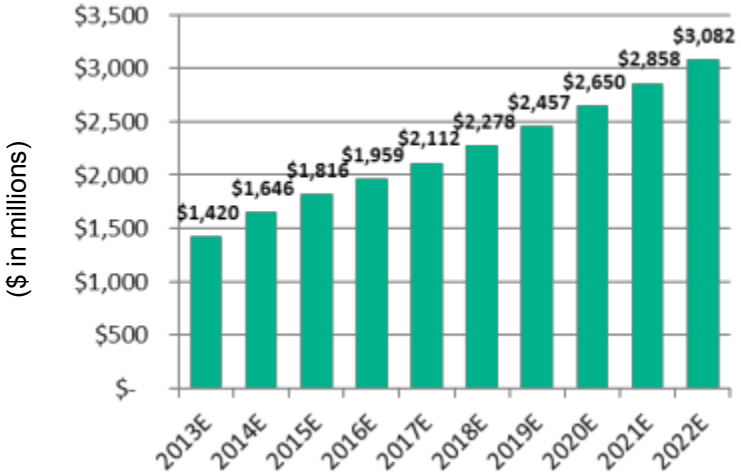

oil

Contents

theranos

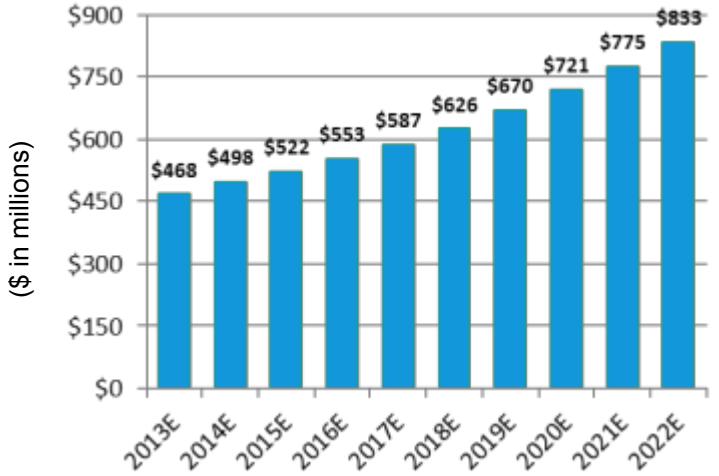
Cost Savings: NY Medicare/Medicaid

Estimated Direct out-of-pocket Cost Savings for New York Medicaid



10-year aggregate savings of $22.3 billion

Estimated Direct out-of-pocket Cost Savings for New York Medicare



10-year aggregate savings of $6.3 billion

Source: CMS.gov, KFF.org and Theranos estimates

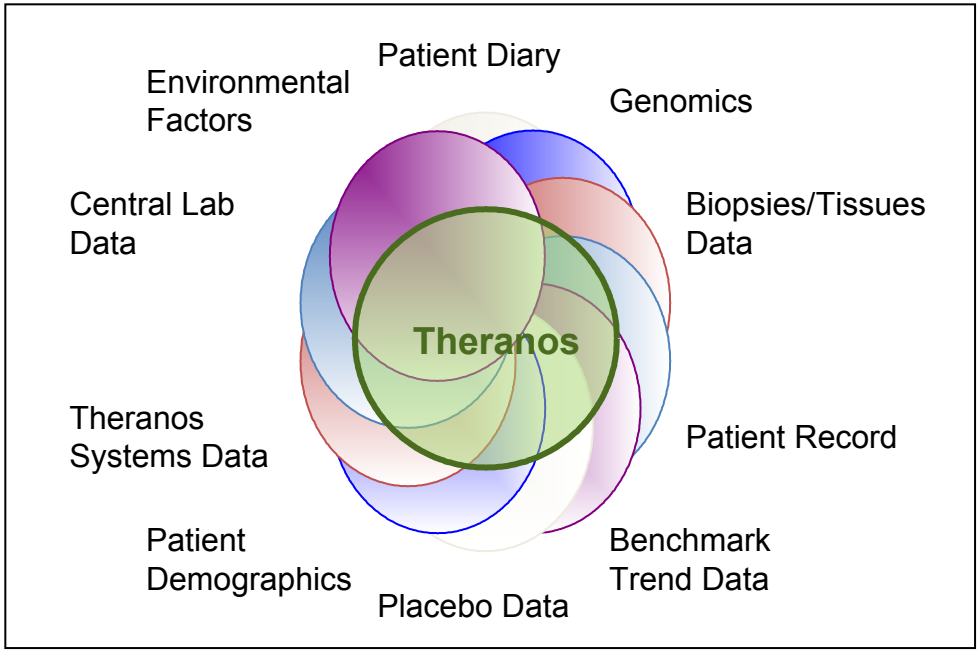
theranos

Contents

theranos

Theranos Data Infrastructure

Standards-based import tools allow for automatic importation, integration, and standardization of data from any and all clinical databases.

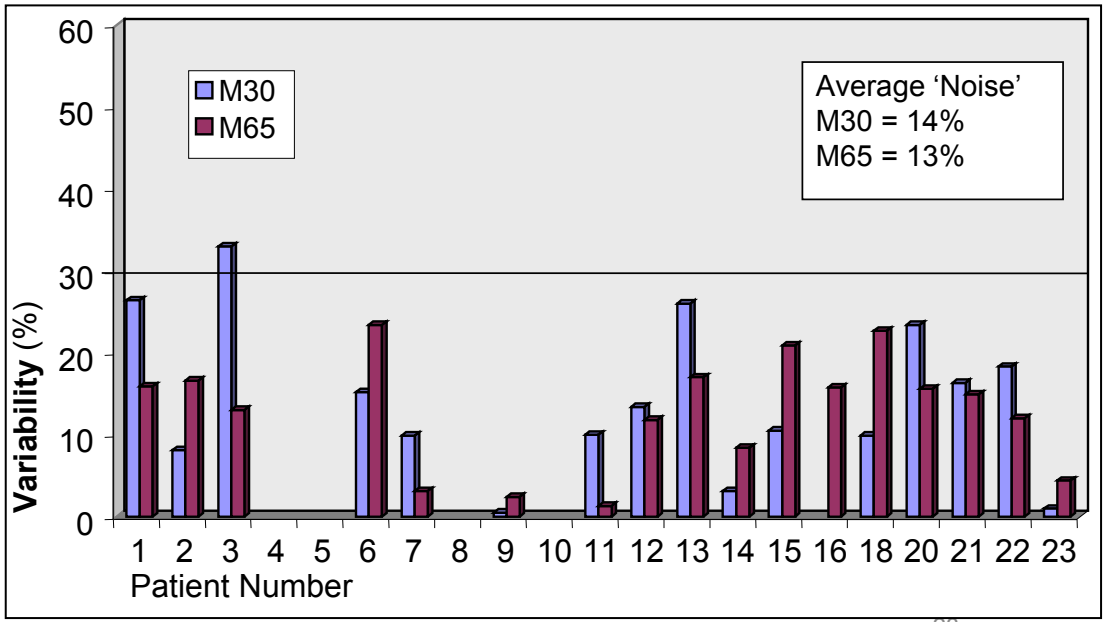


theranos

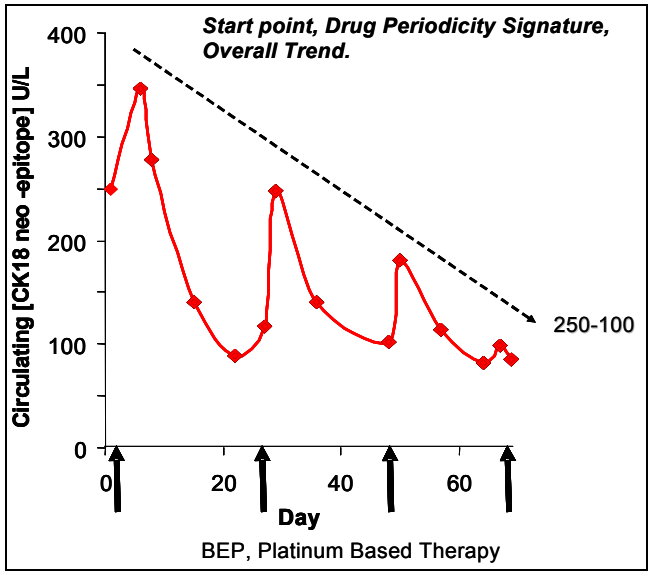
Predictive Insight: Disease Progression

Robust studies have shown that more frequent sampling on a low variability platform allows characterization of trends that cannot be seen when patients come into the clinic for blood draws less frequently and run in traditional labs.

Variability in M30 and M65 Pre-dose Levels (5-7 day gap between 2 pre-dose samples)



Time series: chemo-sensitive solid tumor and M30 M65 trends



theranos

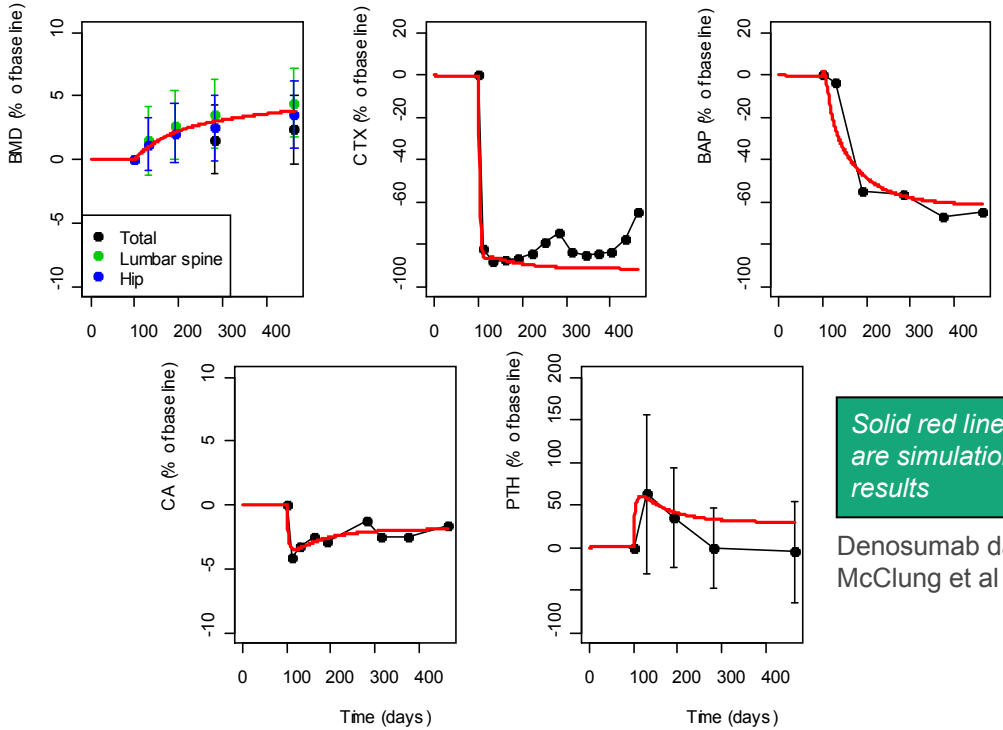
Algorithms used to reduce false positive results through large scale pattern analysis

Case study

95% predictive power

The model takes into account complex physiological system pathways

Model recognizes signatures of BMD changes measurable ~6 months prior to physical changes in BMD to better assess need for intervention



Solid red lines are simulation results

Denosumab data: McClung et al 2006

theranos

Population Centric and Disease Specific Applications Modeling & Simulation of H1N1: District Federal

Based on large set of clinical records from patients with influenza- like illness (ILI) in Mexico from 2009:

Utilized the Theranos influenza model to simulate the H1N1 outbreak in an urban, dense population

Evaluated the impact and cost-effectiveness of enhanced testing and surveillance using THS

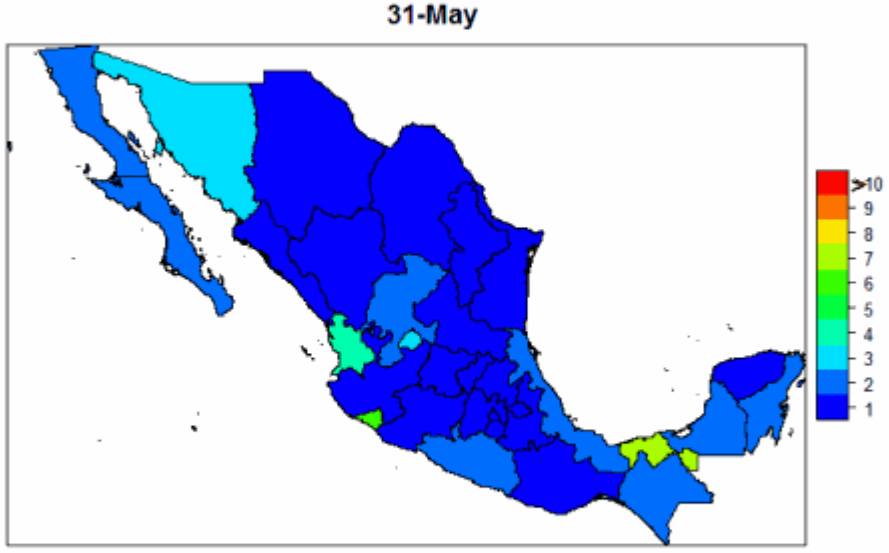
Assessed vaccination strategies to determine the impact on the number of cases and deaths

Explored the impact of different surveillance strategies under different household secondary attack rates

theranos

Theranos Health Threat Control Center for IMMS

Predictions for H1N1 outbreak and recommended interventions

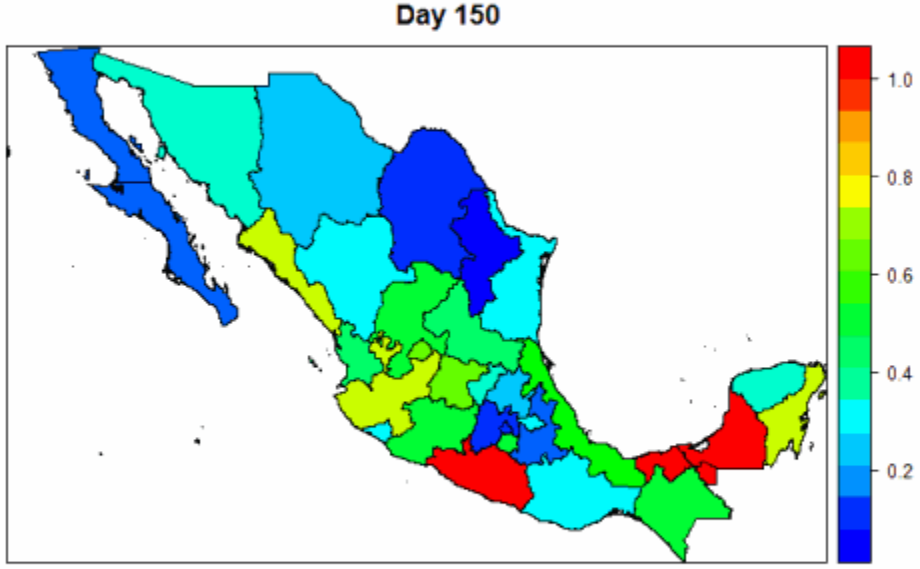


Attack rate: number of suspected cases per 1 million people

Mexico City shows later but sustained high attack rate

theranos

Model Predicted Spread of Outbreak w/ >99% Accuracy



Attack rate: normalized to peak in each state

State geographical locations clearly impact spread of infection

theranos

immunochemistry

theranos

ANA Antibody

Sample ID	Theranos Ab Index	Immco Diagnostics ANA value	USBIOL Ab index	Innova Ab index	IBL Ab Index	ProMeddx Nephelometry ratio
A1	0.77	39.1	0.53	12.2	0.82	1:160
A2	0.73	23.6	0.73	10.4	0.49	1:320
A3	1.78	36.6	0.90	31.2	0.76	1:320
A4	2.36	34.3	1.07	21.5	0.72	1:160
A5	0.62	12.8	0.52	13.3	0.27	1:160
A6	1.14	39.9	1.26	13.3	0.83	1:160
A7	1.64	27.0	0.58	8.4	0.56	1:320
A8	1.89	22.5	0.69	8.4	0.47	1:320
A9	2.18	143.8	2.41	39.1	3.00	1:1280
A10	6.14	32.8	2.13	21.2	0.69	1:1280
A11	1.68	74.1	2.50	74.5	1.55	1:1280
A12	19.53	157.3	2.78	106.2	3.29	1:1280
A13	1.51	32.8	2.75	20.5	0.69	1:160
A14	3.16	31.8	1.85	19.2	0.66	1:160
A15	1.92	24.4	1.01	13.8	0.51	1:320
A16	1.85	58.5	5.36	39.4	1.22	1:1280
A17	5.57	153.8	3.81	99.8	3.21	1:1280
A18	1.45	33.4	1.03	25.1	0.70	1:640
A19	7.98	99.6	2.83	81.5	2.08	1:640
A20	1.87	51.4	0.86	21.3	1.07	1:640
A21	1.06	50.0	0.83	11.9	1.04	1:640
A22	1.38	31.7	1.16	23.2	0.66	1:640
A23	0.95	53.8	1.00	14.0	1.12	1:320
A24	1.57	38.1	1.41	13.7	0.80	1:1280
A25	1.65	55.6	2.55	17.8	1.16	1:640

Sample ID	Theranos Ab Index	Immco Diagnostics ANA value	USBIOL Ab index	Innova Ab index	IBL Ab Index	ProMeddx Nephelometry ratio
A26	0.87	43.2			0.90	1:640
A27	1.69	28.2			0.59	1:640
A28	1.85	37.9			0.79	1:640
A29	0.92	23.4			0.49	1:160
A30	3.19	87.4			1.83	1:160
A32	1.68	48.9			1.02	1:160
A33	1.23	45.3			0.95	1:1280
A34	2.10	50.0			1.04	1:1280
A35	0.85	31.0			0.65	1:320
A36	0.54	40.0			0.84	1:160

Results reported as:
Negative (green), Equivocal (Yellow), or Positive (Red) on the basis of Antibody index for each assay.
Immco kit is an FDA approved ELISA

Ab Index > 1.1
Ab Index > 0.9, < 1.1
Ab Index < 0.9

theranos

Anti - RNP

Sample ID	Human Test Samples			ANTIBODY INDEX			
	Matrix	Species	Strain	Theranos	INOVA	Corgenix	IBL
CLN1	Serum	Normal	N/A	0.01	4	3.28	0.19
CLN2	Serum	Normal	N/A	0.01	4	1.64	0.08
CLN3	Serum	Normal	N/A	0.01	6	3.31	0.27
CLN4	Serum	Normal	N/A	0.01	5	2.77	0.08
CLN5	Serum	Normal	N/A	0.01	4	2.89	0.06
CLN6	Serum	Normal	N/A	0.01	7	2.58	0.16
CLN7	Serum	Normal	N/A	0.01	6	3.33	0.19
CLN8	Serum	Normal	N/A	0.01	5	5.67	0.19
CLN9	Serum	Normal	N/A	0.01	4	1.69	0.12
CLN10	Serum	Normal	N/A	0.01	5	3.32	0.12
SL04	Serum	Autoimmune	Lupus	0.07	38	76.86	3.08
SL07	Serum	Autoimmune	Lupus	3.46	150	226.67	8.08
SL08	Serum	Autoimmune	Lupus	0.03	52	35.77	2.26
SL09	Serum	Autoimmune	Lupus	3.10	148	227.45	8.19
CSLE2	Serum	Autoimmune	Lupus	0.02	98	18.02	0.03
CSLE4	Serum	Autoimmune	Lupus	3.32	142	155.73	4.57
CSLE5	Serum	Autoimmune	Lupus	0.45	90	17.69	0.44
CSLE7	Serum	Autoimmune	Lupus	3.21	146	124.13	3.17
CSLE8	Serum	Autoimmune	Lupus	0.39	126	106.37	1.38
CSLE10	Serum	Autoimmune	Lupus	0.96	142	88.19	2.24
CSLE11	Serum	Autoimmune	Lupus	1.15	140	154.59	4.58
CSLE13	Serum	Autoimmune	Lupus	0.02	88	5.56	0.24
CSLE14	Serum	Autoimmune	Lupus	0.13	33	63.84	1.61
CSLE15	Serum	Autoimmune	Lupus	2.85	147	164.33	2.10
SCL02	Serum	Autoimmune	Scleroderma	0.14	32	3.73	0.11
SCL05	Serum	Autoimmune	Scleroderma	0.05	13	23.55	0.91
SCL07	Serum	Autoimmune	Scleroderma	0.15	71	N/A	0.67
SCL11	Serum	Autoimmune	Scleroderma	0.12	35	59.46	1.81
SCL14	Serum	Autoimmune	Scleroderma	6.02	145	163.45	2.47
SCL35	Serum	Autoimmune	Scleroderma	0.01	N/A	21.16	N/A

Results reported as: Negative (green), Equivocal (Yellow), or Positive (Red) on the basis of Antibody index for each assay.

theranos

Anti - Sm

Samples	Inter-Cartridge Mean	CV%	Theranos Ab Index	IMMCO Result (EU/mL)
SL4	9842	15	1.07	14
SL7	17081	11	1.85	30
SL9	9210	8	1.00	26
Sjog7	5095	16	0.55	12
Sjog9	3153	2	0.34	26
Sjog10	3250	3	0.35	18
Scleroderma 1	5774	18	0.6	13
Scleroderma 2	4931	41	0.5	8
Scleroderma 3	7841	16	0.9	6
Scleroderma 4	6169	4	0.7	5
Scleroderma 5	18168	22	2.0	22
Scleroderma 6	5064	62	0.5	7
Scleroderma 7	7702	9	0.8	17
Scleroderma 8	8490	4	0.9	7
Scleroderma 9	5156	19	0.6	7
Scleroderma 10	8903	3	1.0	7
Scleroderma 11	19170	10	2.1	24
Scleroderma 14	22220 2	6	24.1	29

Results reported as: Negative (green), Equivocal (Yellow), or Positive (Red) on the basis of Antibody index for each assay.

theranos

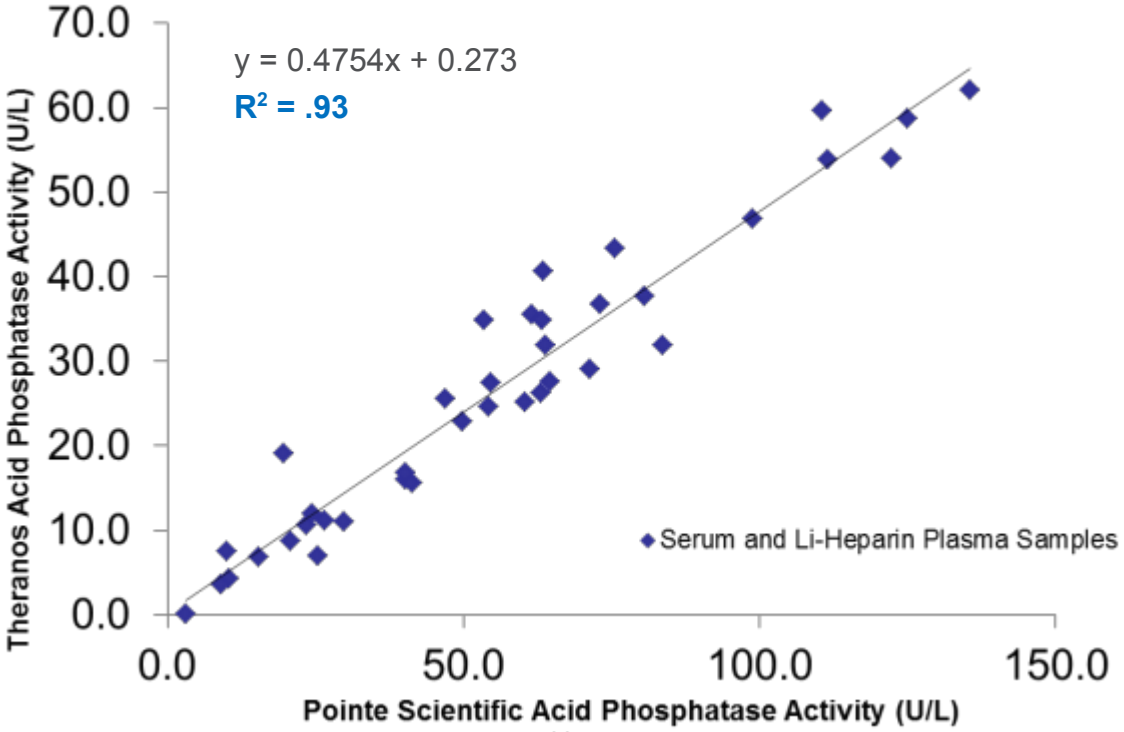
Anti - SSB

Samples	Inter-Cartridge		Theranos	INOVA ELISA	IBL International
	Mean	CV%	Ab index		
A7	7599	19	0.74	2.8	0.44
A13	4448	27	0.44	3.0	0.59
A14	5730	17	0.56	4.8	0.37
A15	5730	20	0.56	2.7	0.32
A17	7288	17	0.71	2.7	0.55
pooled Ana positives	5751	4	0.56	2.7	0.55
Sj01	565	3	0.06	2.8	0.24
Sj02	806	6	0.08	3.0	0.16
Sj03	120175	12	11.77	62.2	2.62
Sj04	626	17	0.06	2.8	0.17
Sj05	204698	16	20.06	96.2	4.67
Sj06	2398	15	0.23	2.8	0.20
Sj07	8161	12	0.80	10.9	0.24
Sj08	4873	2	0.48	17.6	0.24
Sj09	26981	24	2.64	36.3	0.26
Sj10	2500	6	0.24	15.1	0.53

Results reported as: Negative (green), Equivocal (Yellow), or Positive (Red) on the basis of Antibody index for each assay.

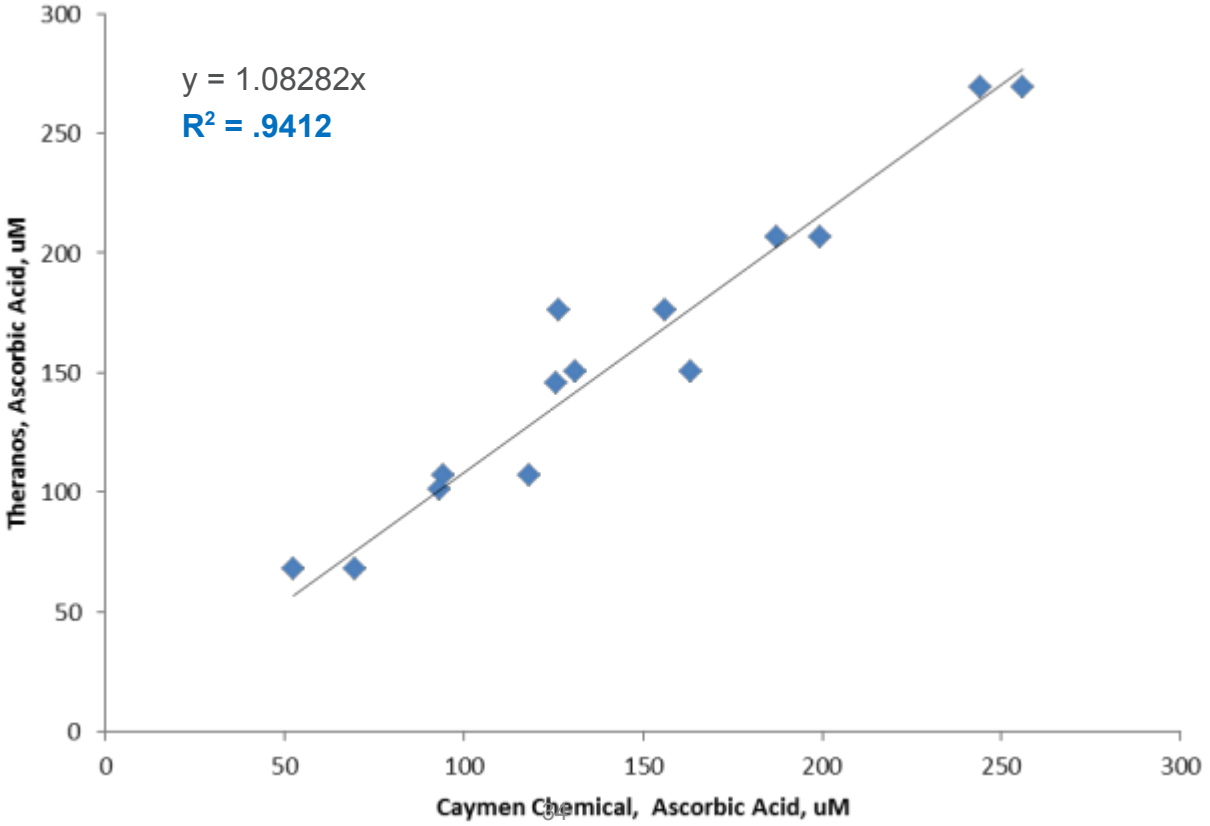
theranos

Acid Phosphatase – Serum & Plasma



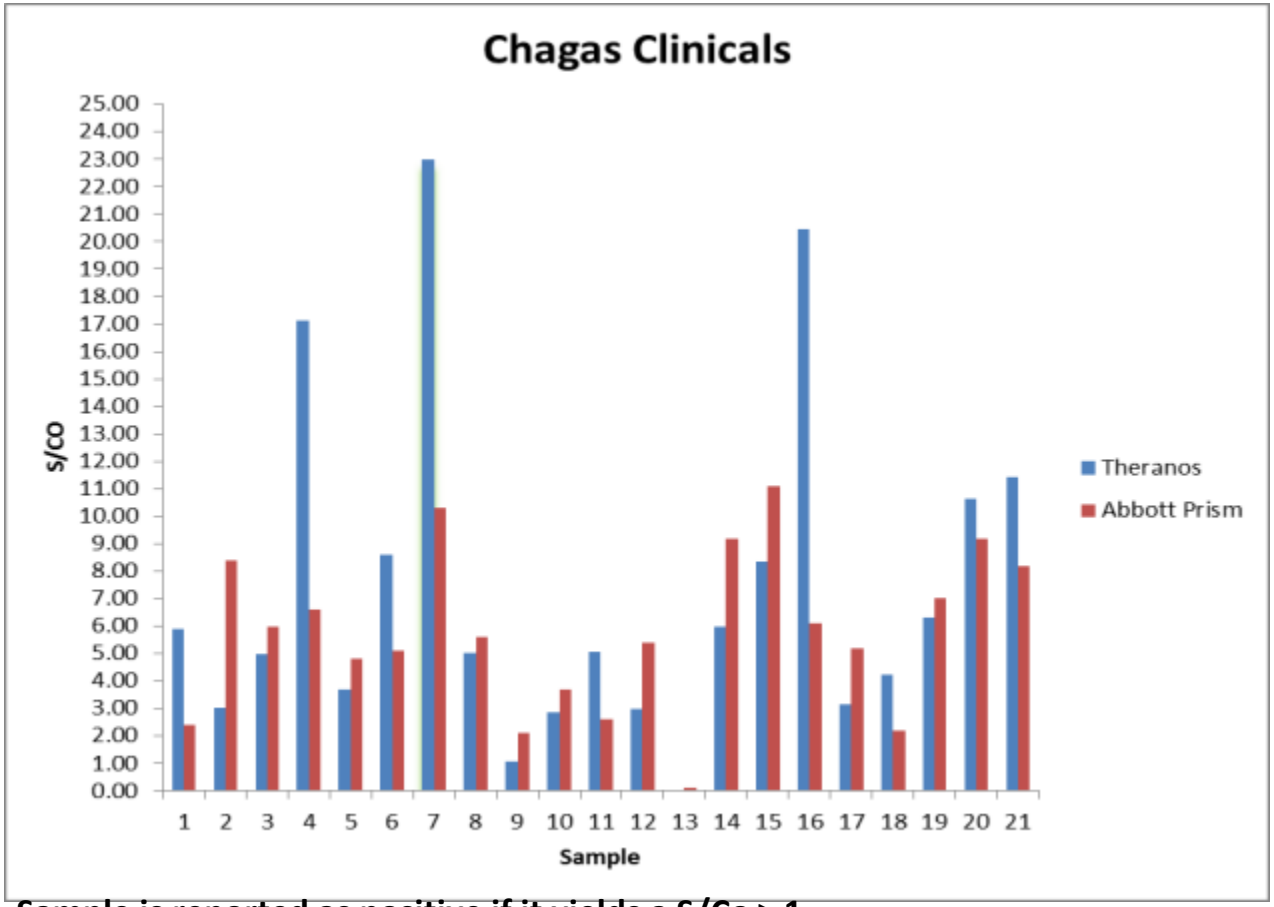
theranos

Ascorbic Acid in Plasma



theranos

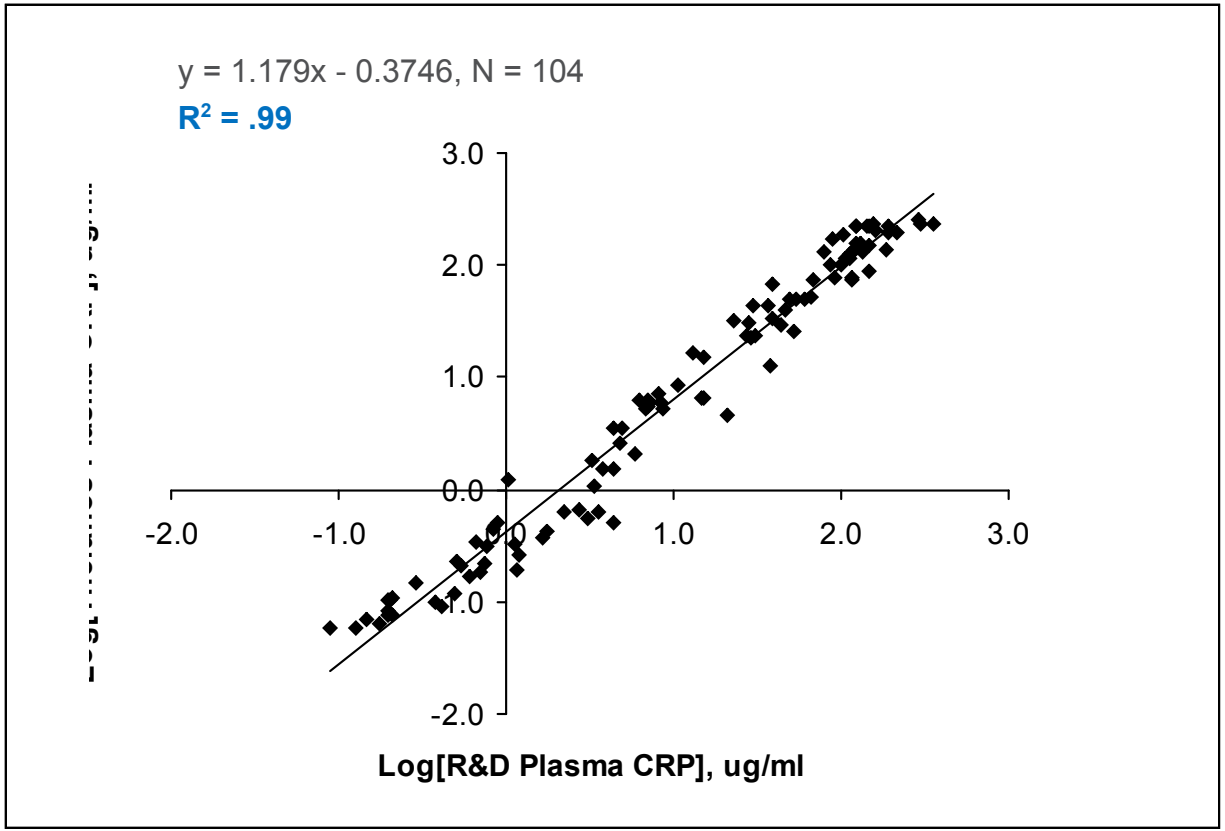
Trypanosoma cruzi (Chagas) antibody



Sample is reported as positive if it yields a S/Co ≥ 1

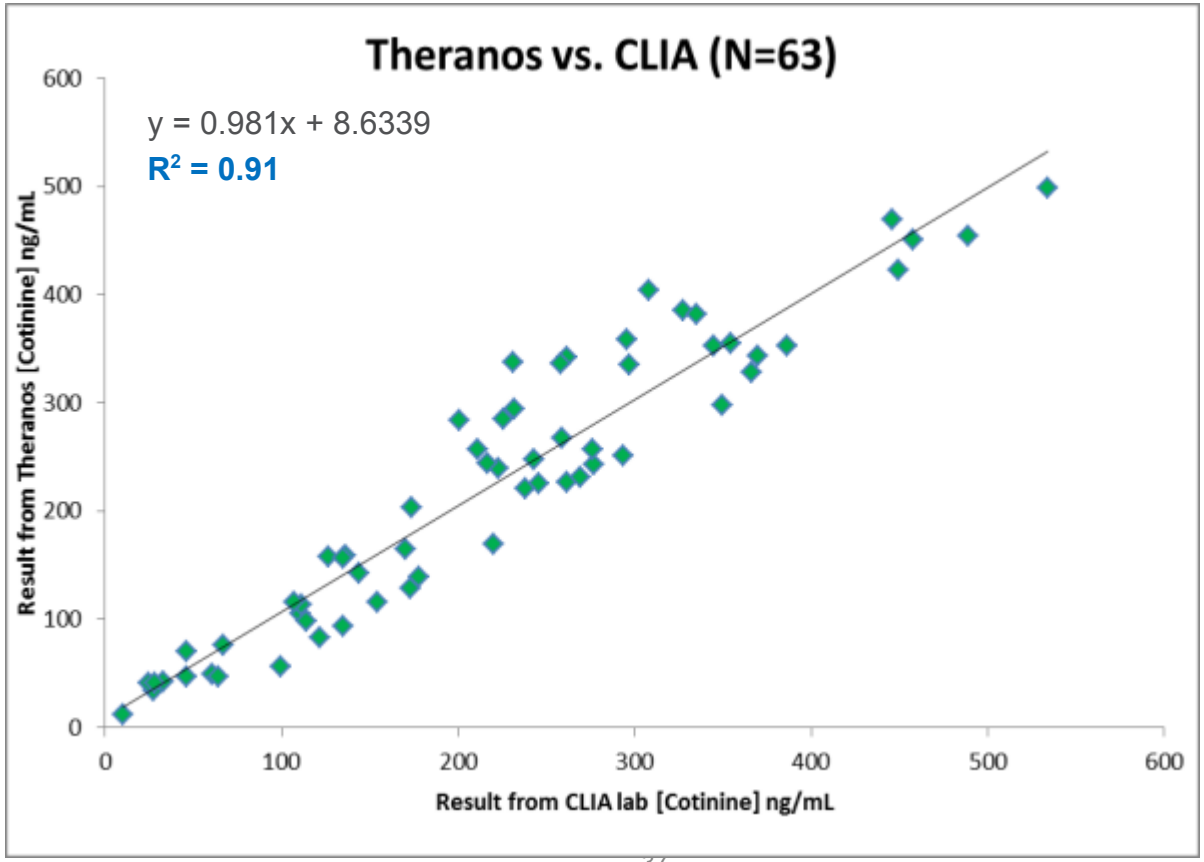
theranos

CRP Test Correlation to Reference Methods Over 10,000-fold Range



theranos

Cotinine (Serum)



theranos

Cotinine (Urine)

	FDA approved	
Theranos Result ng/mL	Cot 1 Cotinine Rapid test	NicChek I Rapid test
OORH	Pos	LowPos
OORH	Pos	LowPos
OORL	Neg	Neg
OORH	Pos	LowPos
765	Pos	LowPos
OORH	Pos	LowPos
OORH	Pos	LowPos
OORL	Neg	Neg
894	Pos	LowPos
1793	Pos	LowPos
OORL	Neg	Neg
178	Pos	LowPos
347	Pos	LowPos
OORH	Pos	High pos
OORH	Pos	High pos
OORH	Pos	High pos
OORH	Pos	High pos
OORL	Neg	Neg
OORH	Pos	High pos
OORH	Pos	High pos

Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

theranos

CMV IgG

	Theranos cutoff			
	5*stdev	10*stdev	Trinity (C of A)	DiaSorin (CLIA)
Zepto MT Panel #1	0.51	0.31	0.3	<<0.20
Zepto MT Panel #2	39.02	23.99	2.4	3.1
Zepto MT Panel #3	56.76	34.89	2.7	6.1
Zepto MT Panel #4	45.48	27.95	2.4	3.3
Zepto MT Panel #5	17.69	10.87	2.8	8.4
Zepto MT Panel #6	45.25	27.82	2.8	5.9
Zepto MT Panel #7	65.68	40.37	2.8	>>10.0
Zepto MT Panel #8	62.07	38.16	2.8	>>10.0
Zepto MT Panel #9	63.62	39.11	2.8	>>10.0
Zepto MT Panel #10	27.03	16.62	2.8	4.8
Zepto MT Panel #11	0.74	0.45	0.2	<<0.20
Zepto MT Panel #12	29.42	18.09	3.2	6.8
Zepto MT Panel #13	10.27	6.31	1.9	3.8
Zepto MT Panel #14	86.07	52.91	2.8	>>10.0
Zepto MT Panel #15	30.47	18.73	2.8	6.1
Zepto MT Panel #16	0.73	0.45	0.3	<<0.20
Zepto MT Panel #17	1.18	0.72	0.1	<<0.20
Zepto MT Panel #18	76.77	47.19	2.7	7.8
Zepto MT Panel #19	1.12	0.69	0.2	<<0.20
Zepto MT Panel #20	9.82	6.04	1.9	4.4
Zepto MT Panel #21	1.28	0.78	0.1	<<0.20
Zepto MT Panel #22	33.62	20.67	3.3	>>10.0
Zepto MT Panel #23	11.86	7.29	2.1	2.5
Zepto MT Panel #24	16.62	10.22	2.1	1.8

Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

theranos

Dengue IgG – Clinical correlation

Result	Calbiotech	Genway	InBios	THERANOS
	Qualitative interpretation:		ISR	ISR
Negative	<0.9	<0.9	< and = to 1.65	< and = to 1.65
Equivocal	0.9 - 1.1	0.9 - 1.1	1.65 -2.84	1.65 -2.84
Positive	>1.1	>1.1	> and = to 2.84	> and = to 2.84

NORMALS			(FDA approved)	
	Calbiotech	Genway	InBios	THERANOS
Sample	Results	Results	RA/NCA Ratio	RA/NCA Ratio
Nor01	0.180	0.183	1.279	2.257
Nor02	0.135	0.142	1.127	0.786
Nor03	0.057	0.071	1.027	0.770
Nor04	0.047	0.062	0.949	0.465
Nor05	0.048	0.048	1.060	0.319
Nor06	0.049	0.047	0.956	0.787
Nor07	0.128	0.129	0.934	0.763
Nor08	0.142	0.147	0.874	0.401
Nor09	0.039	0.038	1.304	0.353
Nor10	0.126	0.144	0.940	0.407
Nor11	0.032	0.034	1.030	0.506
Nor12	0.301	0.377	0.848	0.278
Nor13	0.048	0.046	1.033	0.256
Nor14	0.067	0.072	0.864	0.256
Nor15	0.161	0.159	0.899	0.321
Nor16	0.332	0.457	0.862	0.320
Nor17	0.116	0.173	1.253	0.336
Nor18	0.334	0.416	0.883	0.494
Nor19	0.048	0.047	0.881	0.285
Nor20	0.113	0.126	1.018	0.698

theranos

Dengue IgG – Clinical correlation (contd.)

RF/Hama			(FDA approved)	
	Calbiotech	Genway	InBios	THERANOS
Sample	Results	Results	RA/NCA Ratio	RA/NCA Ratio
Rf (#1)	0.17	0.16	1.33	1.26
Rf (#2)	0.14	0.14	1.08	1.71
Rf (#3)	0.13	0.15	1.23	1.92
Rf (#4)	0.17	0.05	0.94	2.23
Rf (#5)	0.13	0.05	1.33	0.83
Rf (#6)	0.05	0.18	0.83	0.81
Hama (#1)	0.14	0.14	0.78	0.73
Hama (#2)	0.14	0.16	0.84	1.12
Hama (#3)	0.04	0.16	1.12	0.88
Hama (#4)	0.13	0.15	1.01	0.67
Hama (#5)	0.03	0.04	1.02	1.46
Hama (#6)	0.28	0.37	0.94	1.50

Results reported as: Negative (green), Equivocal (Yellow), Positive (Red), on the basis of Antibody index for each assay.

theranos

Dengue IgG – Clinical correlation (contd.)

			Calbiotech Dengue Virus IgG ELISA	EUROIMMUN Anti-Dengue Virus ELISA (IgG)	Focus Dengue Virus IgG DxSelect	Panbio Dengue IgG Capture ELISA	SD Dengue IgG Capture ELISA	THERANOS
Sample	Country of Origin	Seracare Panel	Results	Results	Results	Results	Results	RAINCA Ratio
Clinical (#1)	Colombia	PVD201-01	1.5	4.9	6.2	2.4	>8.9	80.7
Clinical (#2)	Honduras	PVD201-02	1.8	5.3	5.7	1.2	1.6	81.5
Clinical (#3)	Honduras	PVD201-03	2.2	4.8	7.1	1.3	1.1	91.0
Clinical (#4)	Honduras	PVD201-04	1.7	2.0	3.6	0.5	0.5	40.4
Clinical (#5)	Honduras	PVD201-05	2.1	5.1	7.0	4.1	1.9	110.4
Clinical (#6)	Honduras	PVD201-06	2.3	4.4	6.3	4.5	3.4	86.4
Clinical (#7)	Colombia	PVD201-07	1.3	4.7	7.0	7.0	8.8	117.3
Clinical (#8)	Honduras	PVD201-08	2.3	4.3	6.5	2.6	1.2	40.5
Clinical (#9)	Honduras	PVD201-09	2.1	4.4	5.7	0.7	2.1	35.5
Clinical (#10)	Ecuador	PVD201-10	1.3	3.8	2.2	0.4	2.5	42.2
Clinical (#11)	Honduras	PVD201-11	2.1	4.2	4.8	0.5	1	84.1
Clinical (#12)	Honduras	PVD201-12	2.1	3.0	5.3	0.9	0.7	49.3
Clinical (#13)	Honduras	PVD201-13	2.0	4.7	5.8	1.3	2.1	151.4
Clinical (#14)	USA	PVD201-14	0.4	0.1	0.0	0.0	0.1	0.5
Clinical (#15)	Honduras	PVD201-15	2.4	3.7	5.2	1.3	0.8	82.4
Clinical (#16)	Ecuador	PVD201-16	1.4	4.1	2.5	0.7	2.4	53.9
Clinical (#17)	Colombia	PVD201-17	1.5	5.2	5.9	2.3	>8.9	116.7
Clinical (#18)	Honduras	PVD201-18	1.9	3.1	5.4	2.3	0.7	58.4
Clinical (#19)	Honduras	PVD201-19	2.2	3.8	5.8	0.6	0.5	51.1
Clinical (#20)	Ecuador	PVD201-20	1.2	4.4	2.2	0.7	3	57.0
Clinical (#21)	Ecuador	PVD201-21	1.7	5.4	6.8	4.3	>8.9	45.5

Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

Positive samples from Seracare

theranos

Dengue IgG – Clinical correlation (contd.)

Sample #	Calbiotech EIA	Euroimmune EIA	Focus EIA	Panbiotech EIA	Panbiotech Indirect EIA	Standard Diagnostics EIA	THERANOS
9253423	1.663	5.614	6.938	4.654	3.947	8.929	152.6
9253421	1.204	4.541	2.28	0.886	3.174	3.036	89.5
9253422	1.265	4.106	2.333	0.516	0.007	2.506	41.0
9253425	1.372	4.211	2.484	0.977	3.209	2.423	77.0
9254165	1.337	5.211	7.071	7.487	3.947	8.771	84.9
9254166	1.463	4.988	6.298	2.922	3.947	8.929	109.8
9254167	1.49	5.496	6.036	2.775	3.947	8.929	101.5
9240601	2.609	4.992	6.547	2.355			73.3
9242868					2.703		22.9
9254539					3.525		80.2
9254540					3.716		90.6
9254542					3.947		119.6
9254543					3.947		132.2
9256502	2.201						98.0
9256614	3.626						110.1

Results reported as: Negative (green) or Positive (Red) on the basis of Antibody index for each assay.

theranos

Dengue IgM Clinical correlation

SeraCare DENV Sample	Theranos	Focus DxSelect	InBios DENV	Panbio
PVD201-01	POS	POS	EQUIVOCAL	POS
PVD201-02	NEG	NEG	NEG	NEG
PVD201-03	NEG	NEG	NEG	EQUIVOCAL
PVD201-04	NEG	NEG	NEG	NEG
PVD201-05	NEG	NEG	NEG	NEG
PVD201-06	NEG	NEG	NEG	NEG
PVD201-07	POS	POS	POS	POS
PVD201-08	NEG	NEG	NEG	EQUIVOCAL
PVD201-09	NEG	NEG	NEG	NEG
PVD201-10	POS	POS	EQUIVOCAL	POS
PVD201-11	NEG	NEG	NEG	NEG
PVD201-12	NEG	NEG	NEG	NEG
PVD201-13	NEG	NEG	NEG	NEG
PVD201-14	NEG	NEG	NEG	NEG
PVD201-15	NEG	NEG	NEG	NEG
PVD201-16	EQUIVOCAL	NEG	NEG	POS
PVD201-17	POS	POS	EQUIVOCAL	POS
PVD201-18	NEG	NEG	NEG	NEG
PVD201-19	NEG	NEG	NEG	NEG
PVD201-20	POS	POS	EQUIVOCAL	POS
PVD201-21	POS	POS	EQUIVOCAL	POS

	Theranos	Focus DxSelect	InBios DENV	Panbio
RESULTS	<0.90 Negative	<1.00 Negative	<1.65 Negative	<0.9 Negative
	≤1.10 - ≥0.90 Equivocal		1.65-2.84 Equivocal	0.9 - 1.1 Equivocal
	>1.10 Positive	>1.00 Positive	>2.84 Positive	>1.1 Positive

theranos

ENA – Jo-1 antibody

Sample	Innova Units	Immco Result (EU/mL)	IBL Int. Ratio	Theranos Ab Index
1	0	6	0.1	0.6
2	1	7	0.1	0.7
3	32	126	4.4	5.7
4	127	177	6.6	18.1
5	111	169	6.6	9.6
6	5	8	0.1	0.7
7	19	4	0.1	0.0
8	3	10	0.4	0.6
9	8	13	0.3	0.7
10	1	14	0.2	0.7
11	2	12	0.3	0.0
12	1	7	0.1	0.0
13	0	5	0.1	0.0
14	1	3	0.1	0.0
15	1	20	0.2	0.3
16	0	8	0.1	0.0
17	165	175	6.2	16.6
18	1	8	0.2	0.0
19	50	138	4.4	8.1
20	9	10	0.2	0.0
21	107	175	6.3	8.9
22	8	8	0.1	0.0
23	3	10	0.4	0.0
24	5	14	0.3	0.5
25	23	2	0.1	0.4
26	107	201	7.9	2.5
27	69	158	6.5	2.3
28	110	203	8.1	2.6
29	108	208	8.2	2.7
30	109	201	8.2	3.0

Ab index >1.1	Positive
Ab index >0.9<1.1	Equivocal
Ab index < 0.9	Negative

theranos

Epstein Barr Virus-Early Antigen (EBV-EA) IgG

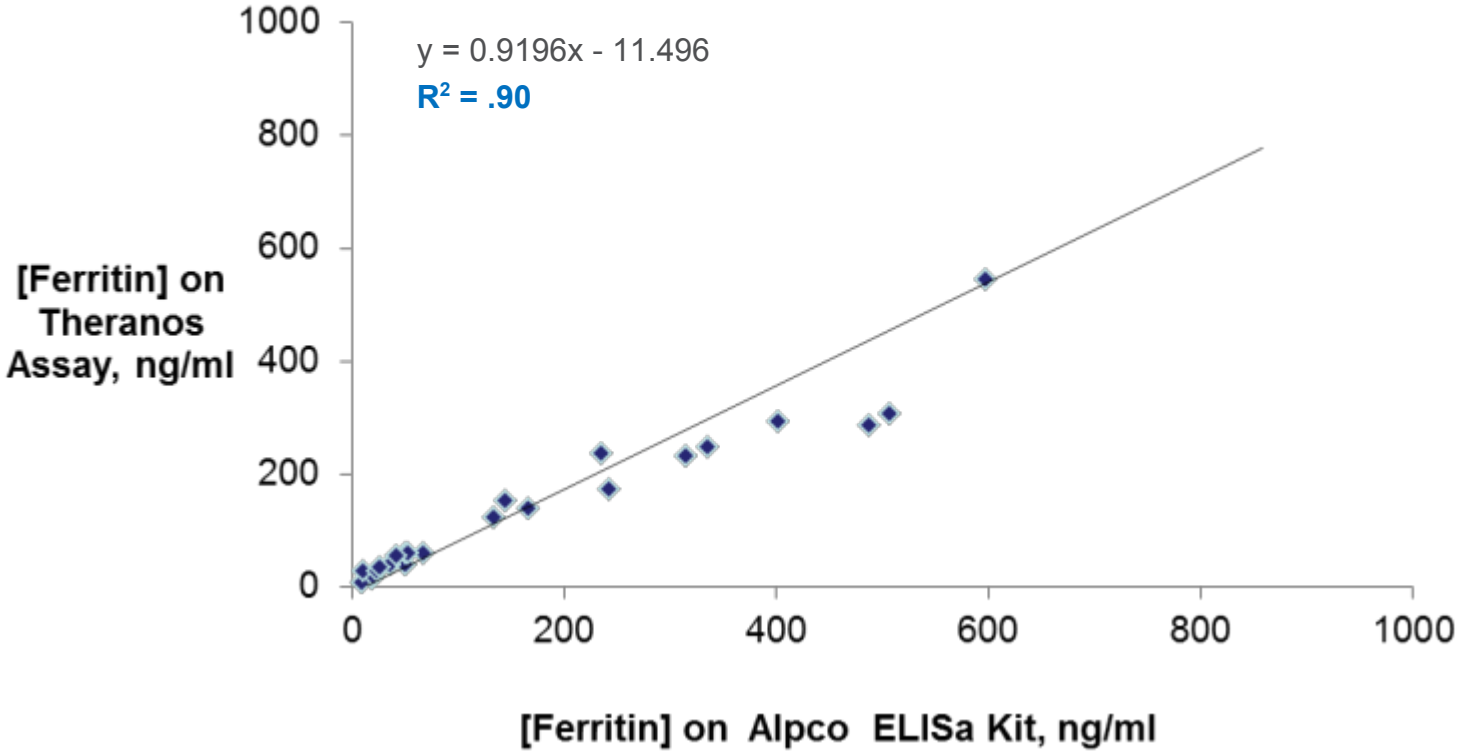
Sample ID	Theranos Index	Liaison Result
PE19	1.00	Negative
B3	2.07	Negative
M1	1.18	Positive
M2	5.43	Positive
M3	1.30	Positive
M4	3.70	Positive
M5	0.44	Negative
M6	3.27	Positive
M7	0.50	Negative
M8	1.19	Positive
M9	0.37	Positive
M10	9.81	Positive
M11	33.26	Positive
M12	19.73	Positive
M13	23.50	Positive
M14	30.30	Positive
M15	0.71	Negative

Sample ID	Theranos Index	Liaison Result
[illegible]	[illegible]	[illegible]
M16	15.13	Positive
M17	4.75	Positive
M18	0.68	Positive
M19	0.56	Negative
M20	0.70	Negative
M21	2.07	Positive
C12	16.97	Positive
C13	16.44	Positive
C14	6.98	Positive
C15	25.11	Positive
C16	24.31	Positive
C17	6.94	Positive
C18	23.52	Positive
C19	17.07	Positive
C20	6.07	Positive
C22	29.08	Positive

Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

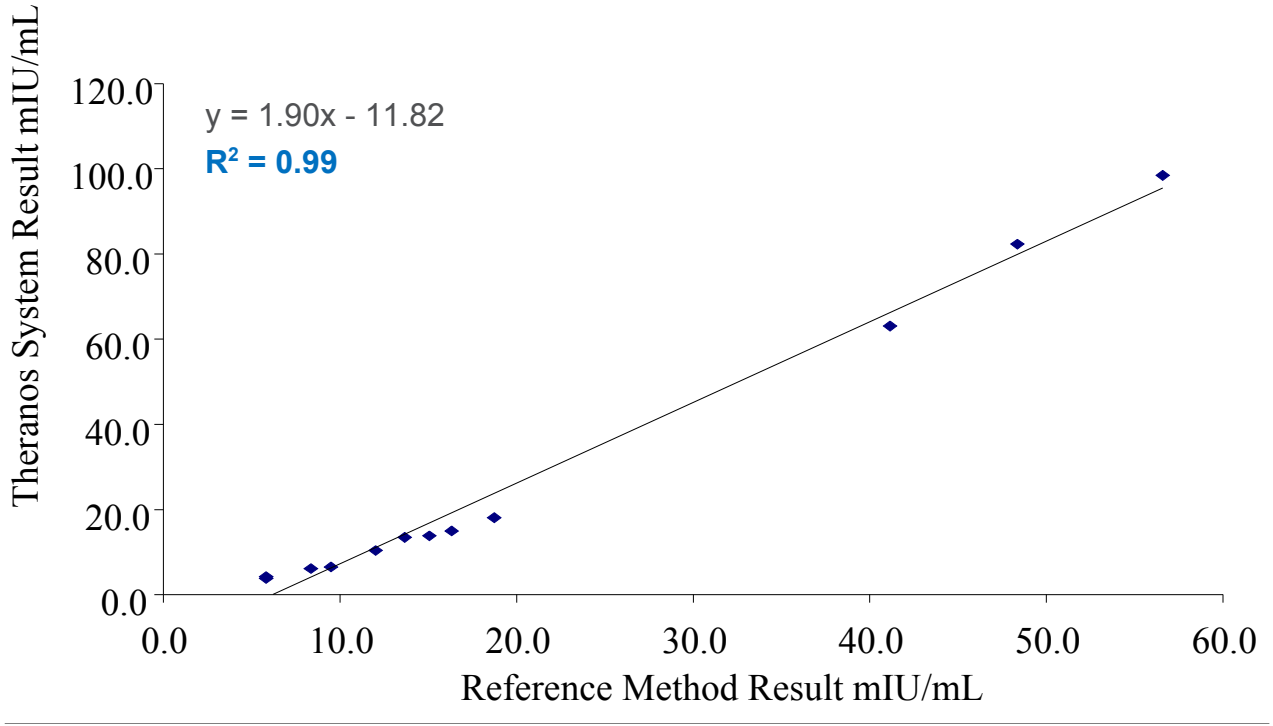
theranos

Ferritin



theranos

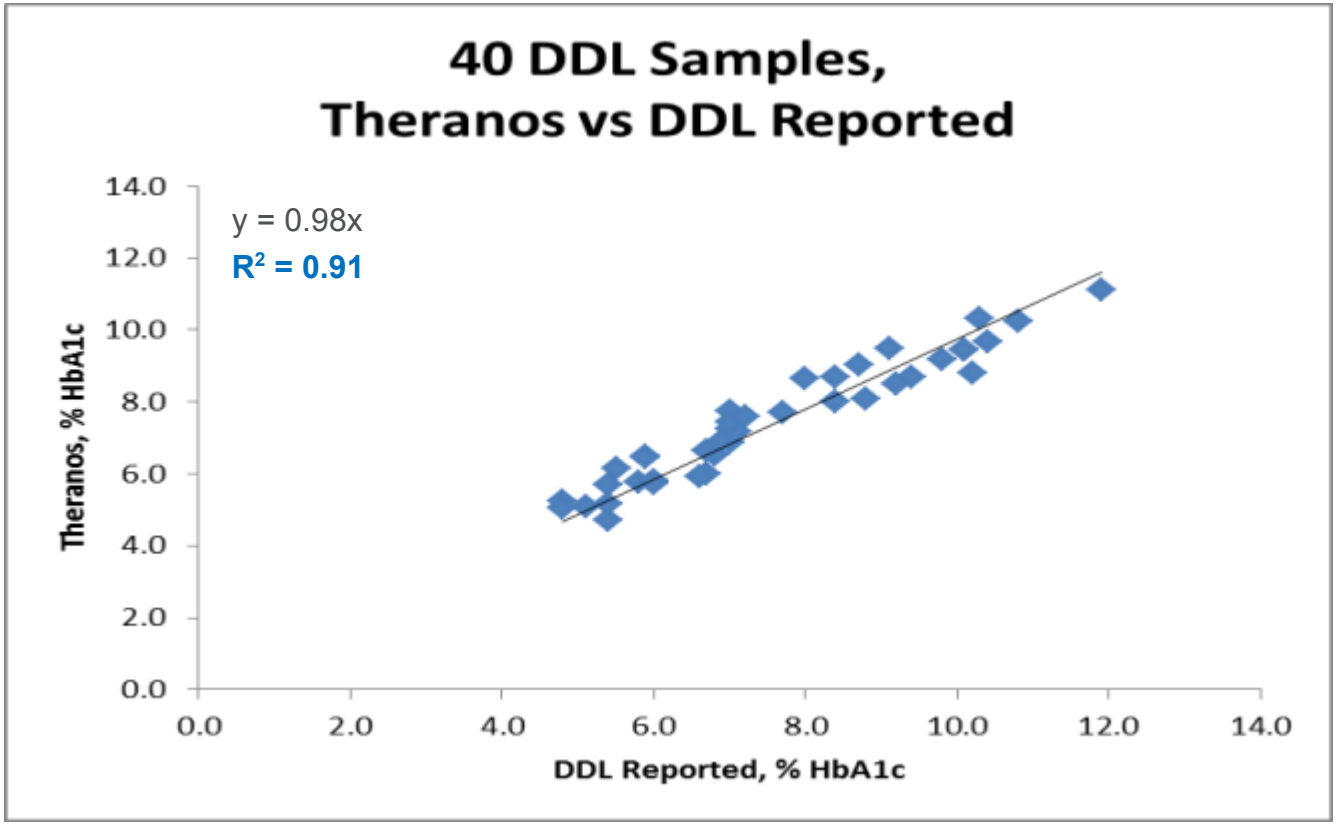
Follicle stimulating Hormone (FSH)



Anti-HAV IgM

	Theranos		Siemens Advia Centaur		Abbott Architect		DiaSorin-ETI-HA-IGMK Plus	
Sample	S/CO	Result	S/CO	Result	S/CO	Result	S/CO	Result
1	0.4	Negative	0.3	Negative	0.8	Negative	0.1	Negative
2	0.3	Negative	0.2	Negative	0.4	Negative	0.1	Negative
3	0.3	Negative	0.2	Negative	0.5	Negative	0.0	Negative
4	0.2	Negative	0.2	Negative	0.3	Negative	0.1	Negative
5	6.7	Positive	>7.0	Positive	2.8	Positive	6.1	Positive
6	4.5	Positive	4.1	Positive	1.1	Positive	3.8	Positive
7	4.4	Positive	4.0	Positive	1	Positive	3.5	Positive
8	0.4	Negative	0.3	Negative	0.7	Negative	0.1	Negative
9	0.2	Negative	0.2	Negative	0.4	Negative	0.1	Negative
10	0.3	Negative	0.4	Negative	0.4	Negative	0.1	Negative
11	8.0	Positive	>7.0	Positive	3.6	Positive	6.5	Positive
12	0.2	Negative	0.2	Negative	0.4	Negative	0.0	Negative
13	0.8	Negative	0.3	Negative	0.7	Negative	0.1	Negative
14	2.6	Positive	2.5	Positive	0.6	Negative	1.3	Positive
15	5.8	Positive	5.9	Positive	1.5	Positive	5.2	Positive
16	0.5	Negative	0.4	Negative	0.4	Negative	0.1	Negative
17	9.6	Positive	6.5	Positive	2.1	Positive	5.3	Positive
18	0.2	Negative	0.2	Negative	0.5	Negative	0.0	Negative
19	6.8	Positive	3.4	Positive	1.7	Positive	3.0	Positive
20	1.8	Positive	0.2	Negative	0.6	Negative	0.1	Negative
21	0.5	Negative	0.3	Negative	0.4	Negative	0.1	Negative

HbA1c



DDL: Diabetes Diagnostic Lab – NGSP standardization program

theranos

Anti-HBc IgM

Seracare anti-HBc IgM Mixed Titer Performance Panel	Theranos Anti-HBc IgM (R > 2)	DPC Immulite Anti-HBc IgM (R >10 u/mL)	Abbott Architect anti-HBc IgM (R >1)	Diasorin ETI-CORE_IgMK (R>1)
	S/Co	PEI U/mL	S/Co	S/Co
Seracare 1	**0.2**	**<2.0**	**0.0**	**0.1**
Seracare 2	9.8	>100	12.9	10.9
Seracare 3	12.3	>100	22.6	11.9
Seracare 4	4.0	15.2	0.9	2.0
Seracare 5	11.1	>100	6.0	9.2
Seracare 6	7.9	88.2	1.8	3.6
Seracare 7	12.3	>100	20.3	12.5
Seracare 8	8.3	98.7	2.1	3.9
Seracare 9	12.2	>100	19.0	11.8
Seracare 10	8.8	>100	3.2	5.9
Seracare 11	10.1	>100	6.6	11.3
Seracare 12	**1.8**	**8.8**	**0.1**	**0.6**
Seracare 13	6.7	>100	2.8	6.2
Seracare 14	11.8	>100	18.2	11.8
Seracare 15	13.0	>100	6.7	10.9
Seracare 16	9.1	>100	4.6	6.1
Seracare 17	**1.4**	**7.7**	**0.3**	**0.9**
Seracare 18	4.8	37.9	1.5	2.6
Seracare 19	12.1	>100	24.6	12.7
Seracare 20	6.5	57.7	1.4	0.7
Seracare 21	6.7	59.6	1.7	3.3
Seracare 22	5.6	32.0	1.2	2.0
Seracare 23	6.8	22.4	1.7	2.1
Seracare 24	13.8	>100	17.2	12.9
Seracare 25	11.8	>100	8.0	7.0

theranos

Anti-HBs antibody

Anti-HBc/HBs Mixed Titer Performance Panel

Member ID#	Theranos mIU/mL	Abbott Anti-HBs Architect mIU/mL
PHG203-01	1.00	13.0
PHG203-04	1138	>1000.0
PHG203-05	592.36	>1000.0
PHG203-06	1.25	2.8
PHG203-07	1025.47	687.5
PHG203-08	4.65	20.0
PHG203-09	2.48	51.0
PHG203-10	121.53	175.0
PHG203-11	1.66	0.4
PHG203-12	0.20	0.2
PHG203-13	2.16	0.6
PHG203-14	0.42	0.7

theranos

D-Amphetamine

Sample #	AMP reported Conc. (ng/ml)	Target value	Qualitative determination cut-off 500ng/ml	Qualitative determination cut-off 1000ng/ml
Bio Rad C2LO (468)	375	25% lower than cut-off 500ng/ml	NEG	NEG
Bio Rad C3LO (469)	625	25% higher than cut-off 500ng/ml	POS	NEG
Bio Rad S1LO (466)	750	25% lower than cut-off 1000ng/ml	POS	NEG
Bio Rad S2LO (467)	1250	25% higher than cut-off 1000ng/ml	POS	POS
Bio Rad S1 (461)	750	25% lower than cut-off 1000ng/ml	POS	NEG
Bio Rad S2 (462)	1250	25% higher than cut-off 1000ng/ml	POS	POS
Bio Rad S3 (463)	2000	2-fold higher than cut-off 100ng/ml	POS	POS
Bio Rad Neg (460)		negative control	NEG	NEG

Ethyl glucuronide

Sample ID	Alcohol Consumption in Past 4 Days?	Total Drinks in 4 Days	Time Since last consumption (H)	Conc, ug/mL	
				Mean Conc	CV %
2	No			0.1	8.8
3	No			0.1	29.0
4	Yes	1	48	0.1	5.9
7	No			0.1	6.8
8	Yes	6	14	0.2	12.0
9	No			0.1	11.3
10	Yes	4	17	20.7	24.2
11	Yes	30	12	1.3	17.8
12	Yes	4	15	2.3	26.4
13	Yes	4	20	0.2	6.3
14	Yes	25	20	4.7	51.9
15	No			0.1	7.6
19	No			OORL	
20	No			OORL	
21	No			OORL	
23	No			OORL	
25	Yes	2	42	OORL	
26	Yes	2	45	OORL	
30	Yes	1	40	0.1	10.6

Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

theranos

Helicobacter pylori IgG

Sample	Mean RLU	CV (%)	INOVA Units	BQ Units	IBL U/mL	10*STDEV Theranos Ab Index
CI01	16629	8	32.5	0.97	1.59	2.3
CI02	106785	17	128.4	3.02	2.39	14.7
CI03	121471	8	43.9	0.91	1.98	16.7
CI04	106361	15	44.0	0.91	1.86	14.6
CI05	58291	28	61.9	1.94	2.15	8.0
CI06	109997	9	30.5	1.08	1.95	15.1
CI07	239170	5	143.3	3.09	2.58	32.9
CI08	8952	5	43.2	1.26	1.33	1.2
CI09	273998	8	80.8	2.18	2.49	37.7
CI10	65144	9	16.8	0.73	1.29	9.0
CI11	31908	8	33.4	1.19	1.64	4.4
CI12	347859	14	144.4	3.13	2.62	47.8
CI13	90265	23	40.7	0.84	1.93	12.4
CI14	398081	18	145.2	3.11	2.64	54.7
CI15	163405	5	130.8	3.07	2.50	22.5
CI16	177040	20	38.1	0.73	2.19	24.3
CI17	149028	2	45.6	0.88	2.00	20.5

Sample	Mean RLU	CV (%)	INOVA Units	BQ Units	IBL U/mL	10*STDEV Theranos Ab Index
CI18	451786	14	145.6	3.23	2.64	62.1
CI19	35238	42	122.8	2.88	2.11	4.8
CI20	62668	22	121.7	2.91	2.25	8.6
CI21	28213	12	83.2	1.96	1.57	3.9
CI22	97115	23	112.1	2.61	2.13	13.4
CI23	129145	3	69.9	2.33	2.40	17.8
CI24	112093	3	42.6	0.82	1.93	15.4
CI25	364396	7	140.9	3.12	2.66	50.1
CI26	82713	15	42.7	0.76	1.85	11.4
CI27	34283	26	64.5	2.05	1.89	4.7
CI28	148340	22	99.3	2.41	2.23	20.4
CI29	84895	12	88.4	2.43	2.29	11.7
CI30	7816	15	27.7	0.77	1.00	1.1
CI31	93622	14	88.5	1.87	2.07	12.9
CI32	107219	17	55.3	2.00	2.41	14.7
CI33	136232	11	41.6	0.69	2.00	18.7
CI34	245687	15	65.9	2.13	2.50	33.8

Results reported as: Negative (green), Equivocal (Yellow), or Positive (Red) on the basis of Antibody index for each assay.

theranos

Hepatitis B Surface Antigen (HbSAg)

Sample	Theranos Result	ORTHO HBsAg ELISA Testsystem 3	DADE BEHRING Enzygnost HBsAg 5.0	Abbott Murex HBsAg Ver. 3	SORIN ETI-MAK 4	Result	Theranos [S/Co]	CLIA Lab [S/Co]
11000-1	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	0.874	0.580
11000-2	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	0.872	0.747
11000-3	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	0.719	0.747
11000-4	Non-reactive	Non-reactive	Non-reactive	Reactive	Non-reactive	Non-reactive	0.847	0.680
11000-5	Non-reactive	Non-reactive	Non-reactive	Reactive	Non-reactive	Non-reactive	0.747	0.663
11000-6	Non-reactive	Non-reactive	Non-reactive	Reactive	Non-reactive	Non-reactive	0.739	0.753
11000-7	Non-reactive	Reactive	Reactive	Reactive	Reactive	Non-reactive	0.799	0.911
11000-8	Reactive	Reactive	Reactive	Reactive	Reactive	Reactive	1.216	1.070
11000-9	Reactive	Reactive	Reactive	Reactive	Reactive	Reactive	2.967	3.300

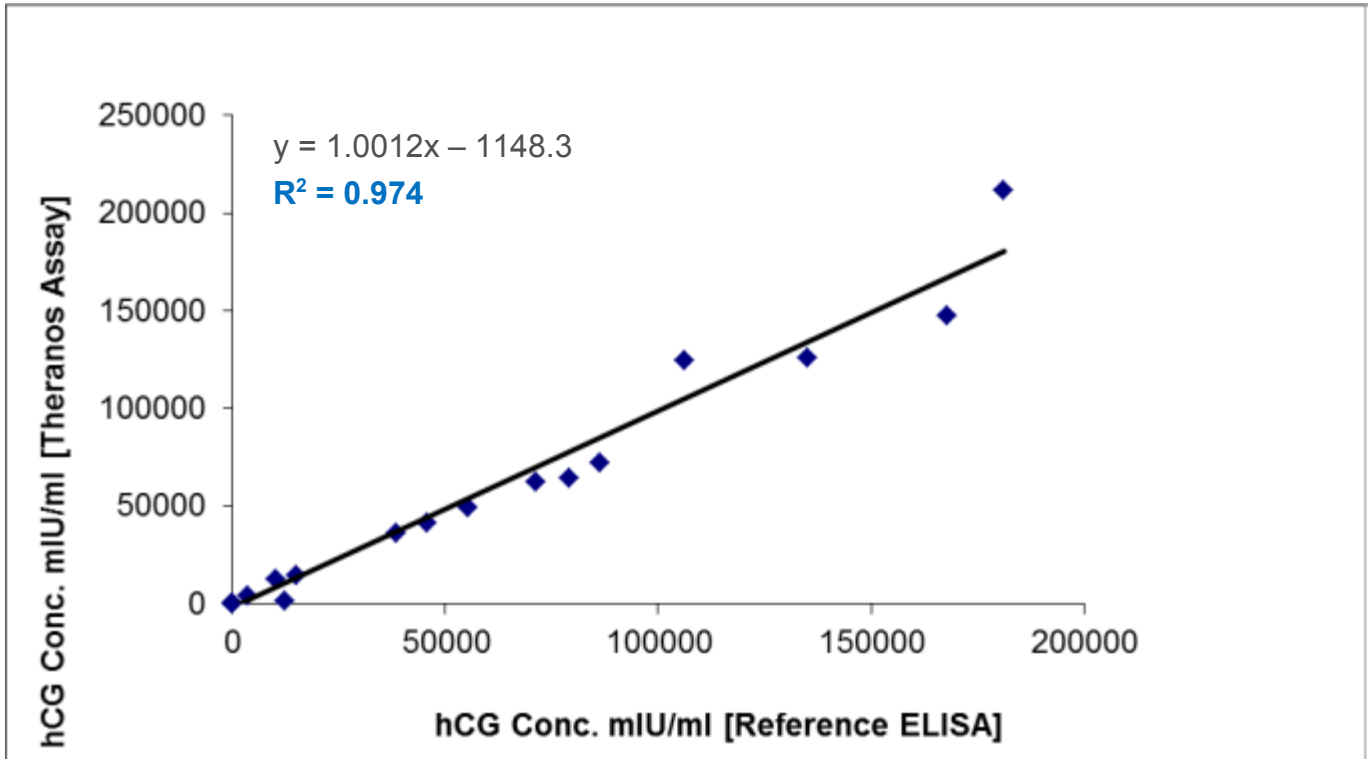
theranos

Heterophile antibody

Sample ID	Theranos Ab	Osom Mono	Status Mono
1	NEG	NEG	NEG
2	NEG	NEG	NEG
3	NEG	NEG	NEG
4	NEG	NEG	NEG
5	NEG	NEG	NEG
6	NEG	NEG	NEG
7	NEG	NEG	NEG
8	NEG	NEG	NEG
9	NEG	NEG	NEG
10	NEG	NEG	NEG
11	NEG	NEG	NEG
12	NEG	NEG	NEG
13	NEG	NEG	NEG
14	NEG	NEG	NEG
15	NEG	NEG	NEG
16	NEG	NEG	NEG
17	NEG	NEG	NEG
18	NEG	NEG	NEG
19	NEG	NEG	NEG
20	NEG	NEG	NEG
21	NEG	NEG	NEG
22	NEG	NEG	NEG
23	NEG	NEG	NEG
24	NEG	NEG	NEG
25	NEG	NEG	NEG
26	NEG	NEG	NEG
27	NEG	NEG	NEG
28	NEG	NEG	NEG
29	NEG	NEG	NEG

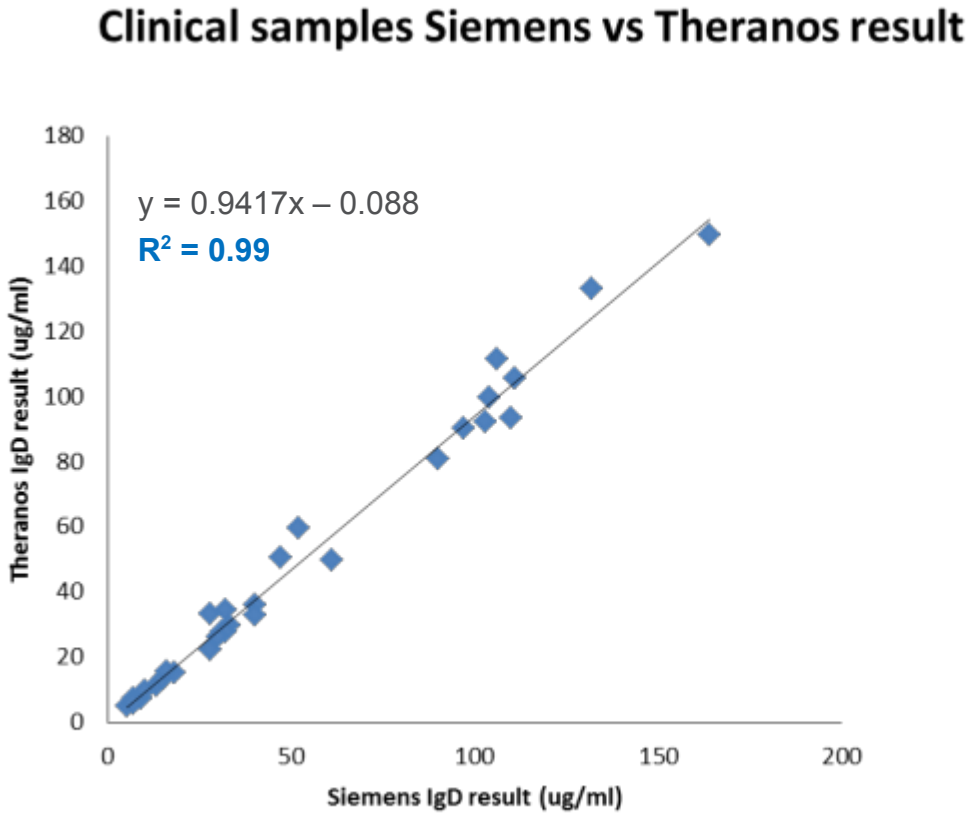
Sample ID	Theranos Ab	Osom Mono	Status Mono
30	NEG	NEG	NEG
31	NEG	NEG	NEG
32	NEG	NEG	NEG
33	NEG	NEG	NEG
34	NEG	NEG	NEG
35	NEG	NEG	NEG
36	NEG	NEG	NEG
37	NEG	NEG	NEG
38	NEG	NEG	NEG
39	BOR	NEG	NEG
40	NEG	POS	NEG
41	POS	POS	POS
42	POS	POS	POS
43	POS	POS	POS
44	POS	POS	POS
45	POS	POS	POS
46	POS	POS	POS
47	POS	POS	POS
48	POS	POS	POS
49	POS	POS	POS
50	POS	POS	POS
51	POS	POS	POS
52	POS	POS	POS
53	POS	POS	POS
54	POS	POS	POS
55	POS	POS	POS
56	POS	POS	POS
57	POS	POS	POS
58	POS	POS	POS

Human chorionic gonadotropin (hCG)



theranos

Human IgD



theranos

Anti-HSV1 IgG

Liaison HSV2 Result	Sample ID	Liaison Result	EuroImmun Result	Theranos HSV1 Result
Negative	BR101	Positive	Positive	Positive
Negative	BR103	Positive	Positive	Positive
Negative	BR104	Positive	Positive	Positive
Negative	BR105	Positive	Positive	Positive
Negative	BR106	Positive	Positive	Positive
Negative	BR107	Positive	Positive	Positive
Negative	BR109	Positive	Positive	Positive
Negative	BR111	Positive	Positive	Positive
Negative	BR112	Positive	Positive	Positive
Negative	BR114	Positive	Positive	Positive
Negative	BR115	Positive	Positive	Positive
Negative	BR116	Positive	Positive	Positive
Negative	BR117	Positive	Positive	Positive
Negative	SC01	Positive	Positive	Positive
Negative	SC02	Positive	Positive	Positive
Negative	SC07	Positive	Positive	Positive
Negative	SC10	Positive	Positive	Positive
Negative	SC16	Positive	Positive	Positive
Negative	SC17	Positive	Positive	Positive
Negative	SC18	Positive	Positive	Positive
Negative	Z01	Positive	Positive	Positive
Negative	Z06	Positive	Positive	Positive

Liaison HSV2 Result	Sample ID	Liaison Result	EuroImmun Result	Theranos HSV1 Result
Negative	Z11	Positive	Positive	Positive
Negative	Z13	Positive	Positive	Positive
Negative	Z14	Positive	Positive	Positive
Negative	Z20	Positive	Positive	Positive
Negative	Z26	Positive	Positive	Positive
Negative	Z27	Positive	Positive	Positive
Negative	Z28	Positive	Positive	Positive
Negative	Z29	Positive	Positive	Positive
Negative	Z30	Positive	Positive	Positive
Negative	Z31	Positive	Positive	Positive
Negative	Z32	Positive	Positive	Positive
Negative	Z34	Positive	Positive	Positive
Negative	Z35	Positive	Positive	Positive
Negative	Z36	Positive	Positive	Positive
Negative	MT01	Positive	Positive	Positive
Negative	MT21	Positive	Positive	Positive
Positive	BR108	Positive	Positive	Positive
Positive	BR118	Positive	Positive	Negative
Positive	BR201	Positive	Positive	Positive
Positive	BR206	Positive	Positive	Positive

theranos

Anti-HSV2

Liaison HSV1 Result	Sample ID	Liaison HSV2 Result	EuroImmun HSV2 Result	**Theranos HSV2 Result**
Negative	BR113	Positive	Positive	23.34
Negative	BR202	Positive	Positive	29.79
Negative	BR203	Positive	Positive	7.94
Negative	BR204	Positive	Positive	2.63
Negative	BR207	Positive	Positive	15.77
Negative	BR208	Positive	Positive	24.24
Negative	BR209	Positive	Positive	14.48
Negative	BR211	Positive	Positive	24.93
Negative	BR213	Equivocal	Negative	0.74
Negative	BR215	Positive	Positive	13.33
Negative	Z16	Positive	Equivocal	5.14
Negative	Z21	Positive	Positive	9.96
Negative	Z22	Positive	Equivocal	5.22
Negative	Z23	Positive	Equivocal	3.63
Negative	F03	Positive	Positive	13.34
Negative	SC03	Positive	Positive	10.56
Negative	SC04	Positive	Positive	36.49
Negative	SC05	Positive	Positive	14.44
Negative	SC11	Positive	Positive	13.15
Negative	SC15	Positive	Positive	4.80
Negative	MT02	Positive	Positive	18.50
Negative	MT06	Positive	Equivocal	2.82
Negative	MT07	Positive	Equivocal	0.78
Negative	MT08	Positive	Positive	23.58
Negative	MT13	Positive	Positive	17.13
Negative	MT16	Positive	Positive	3.54
Negative	MT17	Positive	Positive	22.53
Negative	MT24	Positive	Equivocal	3.33
Positive	BR108	Positive	Positive	17.76
Positive	BR110	Positive	Positive	10.53
Positive	BR118	Positive	Positive	21.22
Positive	BR201	Positive	Positive	14.83
Positive	BR206	Positive	Positive	18.70
Positive	BR210	Positive	Positive	8.29
Positive	BR212	Positive	Positive	17.80
Positive	BR214	Positive	Positive	8.72

theranos

Influenza A – Qualitative EIA

TYPE	SAMPLE ID	Theranos		REMEL (FDA)
		Ab index	Result	Result
NORMAL CLINICALS	1	0.02	NEG	NEG
	6	0.02	NEG	NEG
	7	0.02	NEG	NEG
	8	0.02	NEG	NEG
	10	0.02	NEG	NEG
	11	0.01	NEG	NEG
	12	0.02	NEG	NEG
	13	0.01	NEG	NEG
	15	0.02	NEG	NEG
	16	0.04	NEG	NEG
	17	0.02	NEG	NEG
	18	0.02	NEG	NEG
	2	0.32	NEG	NEG
	3	0.23	NEG	NEG
	4	0.20	NEG	NEG
	9	0.05	NEG	NEG
	14	0.29	NEG	NEG
	19	0.95	NEG	NEG
REMEL	Positive control swab	2.66	POS	POS
Zeptometric QC panel	Flu A POS	1.27	POS	POS
Flu A	Brisbane/10/07	2.58	POS	POS
Flu A	Solomon Islands/03/2006	3.25	POS	POS
Flu A	New Caledonia/20/99	2.57	POS	POS
Flu A	Brisbane/59/07	5.16	POS	POS
NIBSC STANDARDS FLU B	Panama 45/90	0.06	NEG	
	Influenza Antigen B-Johannesburg	0.06	NEG	
	Influenza Antigen B-Guangdong	0.08	NEG	
	Influenza Antigen B/Yamanashi/166/98.	0.11	NEG	
	Influenza Antigen B/Malaysia/2506/2004	0.02	NEG	
	Influenza Antigen B/Harbin/7/94	0.06	NEG	
	B:/Florida 4/2006	0.04	NEG	
NIBSC STANDARDS FLU A	Influenza Antigen A/California /7/2009-H1N1	6.88	POS	
	Influenza Antigen A/HongKong/1073/99 (H9N2)	8.56	POS	
	Influenza Antigen A/Cambodia/RO405050/2007 (H5N1)	6.02	POS	
	Influenza Antigen A/mallard/England/727/2006 (H2N3)	5.70	POS	
	Influenza Antigen A/New York/107/2003 (H7N2) (NIBRG-109)	7.26	POS	
	Influenza Antigen A/New York/55/2004 (H3N2) (NYMC X-157)	6.54	POS	

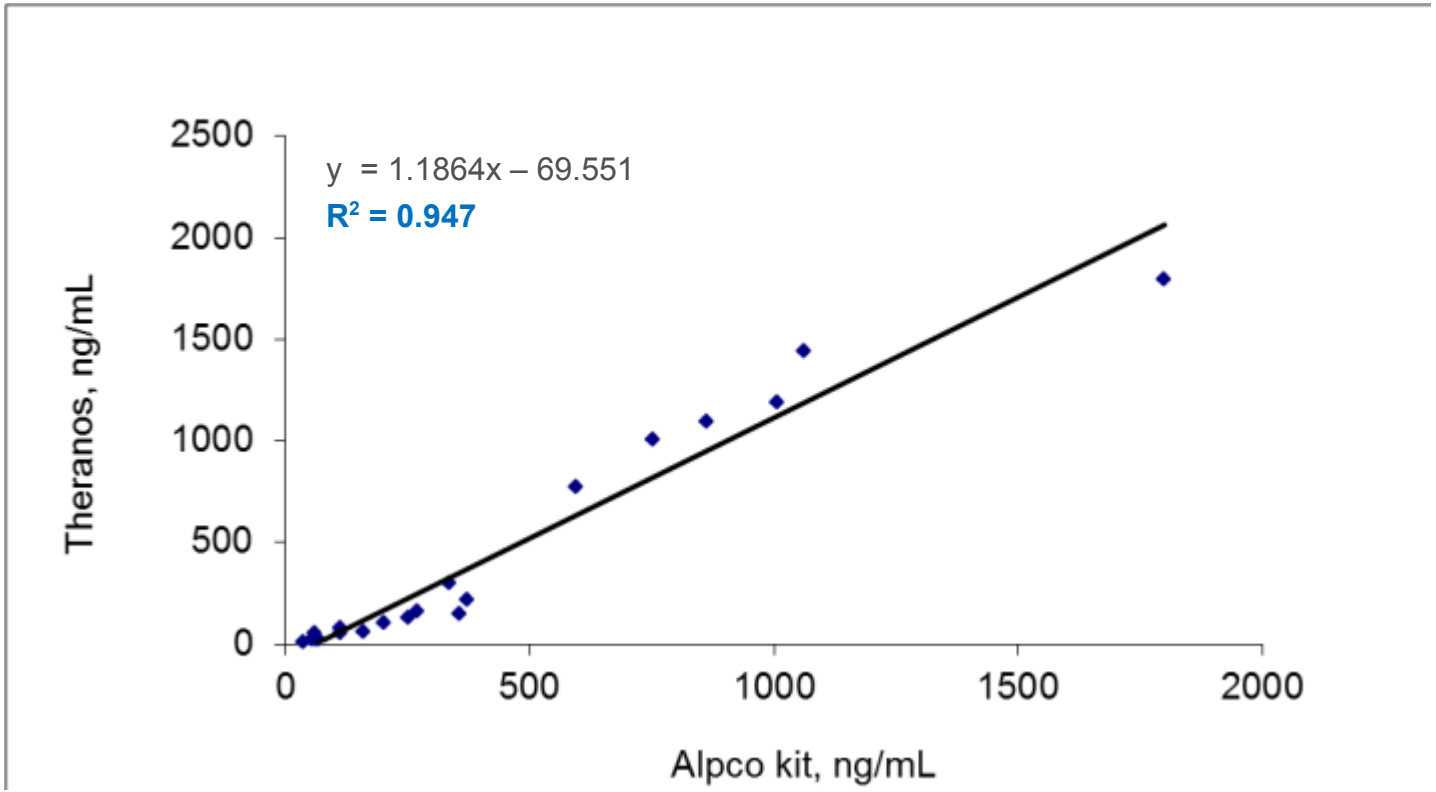
Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

theranos

Influenza B – Qualitative EIA

TYPE	SAMPLE ID	Theranos		REMEL (FDA)
		Ab index	Result	Result
NORMAL CLINICALS	1	0.02	NEG	NEG
	6	0.03	NEG	NEG
	7	0.02	NEG	NEG
	8	0.02	NEG	NEG
	10	0.04	NEG	NEG
	11	0.02	NEG	NEG
	12	0.03	NEG	NEG
	13	0.01	NEG	NEG
	15	0.02	NEG	NEG
	16	0.06	NEG	NEG
	17	0.02	NEG	NEG
	18	0.03	NEG	NEG
	2	0.11	NEG	NEG
	3	0.03	NEG	NEG
	4	0.04	NEG	NEG
	9	0.05	NEG	NEG
	14	0.36	NEG	NEG
	19	0.79	NEG	NEG
REMEL	FDA Pos B Swab	10.78	POS	POS
Zeptometric QC panel	Flu A POS	0.02	NEG	NEG
Flu A	Brisbane/10/07	0.03	NEG	NEG
Flu A	Solomon Islands/03/2006	0.01	NEG	NEG
Flu A	New Caledonia/20/99	0.02	NEG	NEG
Flu A	Brisbane/59/07	0.03	NEG	NEG
NIBSC STANDARDS FLU B	Panama 45/90	14.38	POS	POS
	Influenza Antigen B-Johannesburg	2.58	POS	POS
	Influenza Antigen B-Guangdong	21.28	POS	POS
	Influenza Antigen B/Yamanashi/166/98.	6.05	POS	POS
	Influenza Antigen B/Malaysia/2506/2004	7.53	POS	POS
	Influenza Antigen B/Harbin/7/94	18.21	POS	POS
	B./Florida 4/2006	19.27	POS	POS
NIBSC STANDARDS FLU A	Influenza Antigen A/California /7/2009-H1N1	0.36	NEG	NEG
	Influenza Antigen A/HongKong/1073/99 (H9N2)	0.50	NEG	NEG
	Influenza Antigen A/Cambodia/R040505Q/2007 (H5N1)	0.61	NEG	NEG
	Influenza Antigen A/mallard/England/727/2006 (H2N3)	0.50	NEG	NEG
	Influenza Antigen A/New York/107/2003 (H7N2) (NIBRG-109)	0.39	NEG	NEG
	Influenza Antigen A/New York/55/2004 (H3N2) (NYMC X-157)	0.12	NEG	NEG
Zeptometrix Panel Flu B	Lee/40	11.31	POS	POS
Flu B	Florida/02/2006	2.57	POS	POS
Flu B	Brisbane/33/2008	12.36	POS	POS
Flu B	Panama/45/90	5.93	POS	POS
Flu B	Panama/45/90	4.64	POS	POS

Immunoglobuline (IgE)



theranos

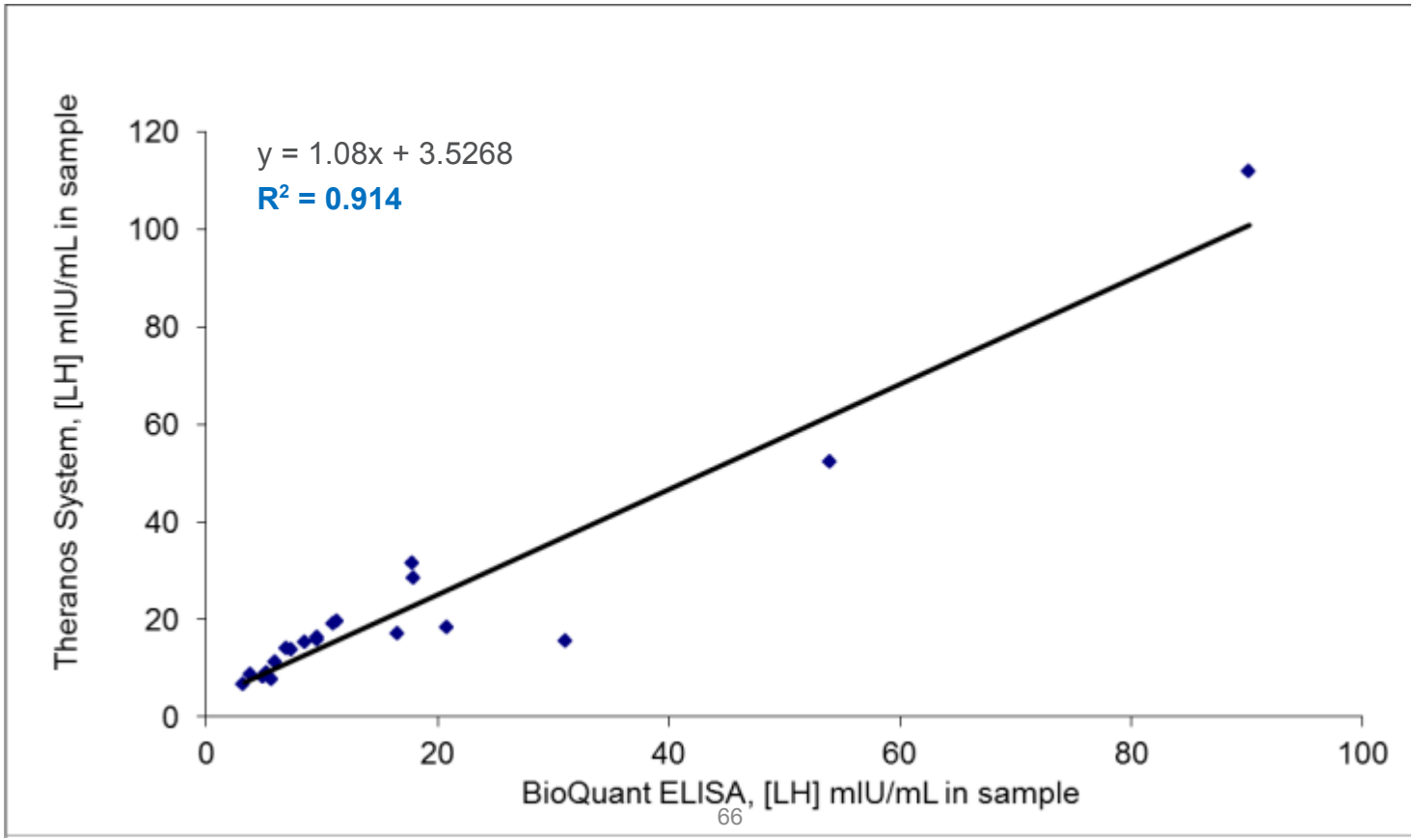
Anti-Jo-1

				10*STDEV
	Innova	Immco	IBL Int.	Theranos
Sample	Units	Result (EU/mL)	Ratio	Ab Index
CI01	0	6	0.1	0.6
CI02	1	7	0.1	0.7
CI03	32	126	4.4	5.7
CI04	127	177	6.6	18.1
CI05	111	169	6.6	9.6
CI06	5	8	0.1	0.7
CI07	19	4	0.1	0.0
CI08	3	10	0.4	0.6
CI09	8	13	0.3	0.7
CI10	1	14	0.2	0.7
CI11	2	12	0.3	0.0
CI12	1	7	0.1	0.0
CI13	0	5	0.1	0.0
CI14	1	3	0.1	0.0
CI15	1	20	0.2	0.3
CI16	0	8	0.1	0.0
CI17	165	175	6.2	16.6
CI18	1	8	0.2	0.0
CI19	50	138	4.4	8.1
CI20	9	10	0.2	0.0
CI21	107	175	6.3	8.9
CI22	8	8	0.1	0.0
CI23	3	10	0.4	0.0
CI24	5	14	0.3	0.5
CI25	23	2	0.1	0.4
CI35	107	201	7.9	2.5
CI36	69	158	6.5	2.3
CI37	110	203	8.1	2.6
CI38	108	208	8.2	2.7
CI39	109	201	8.2	3.0

Results reported as Negative (green) or Positive (Red) on the basis of Antibody index.

theranos

Luteinizing Hormone (LH)



theranos

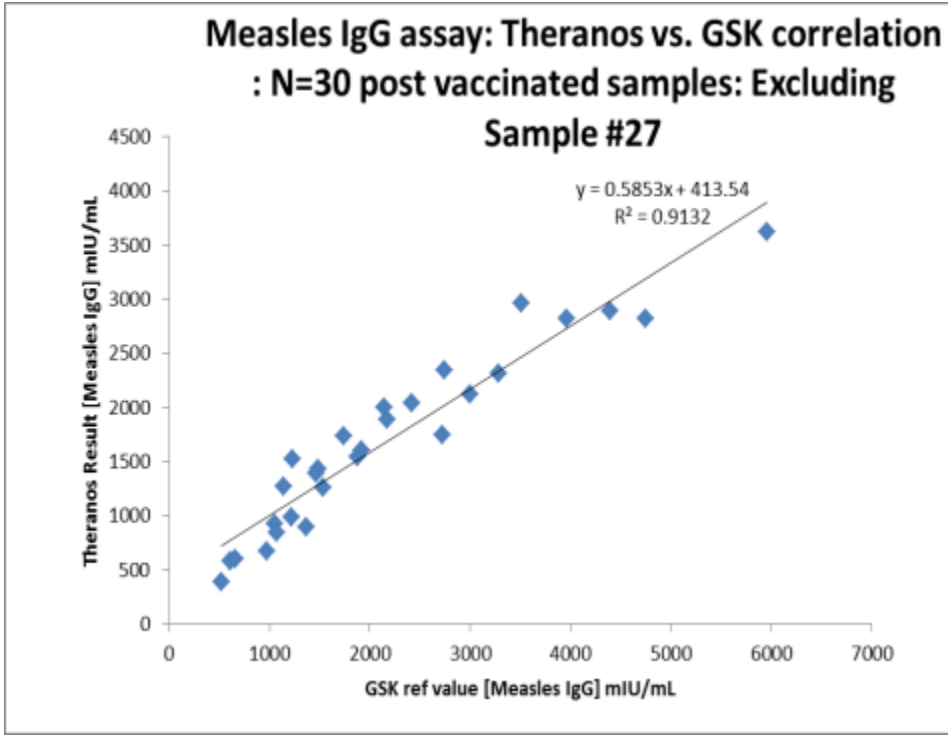
Lyme disease Antibody

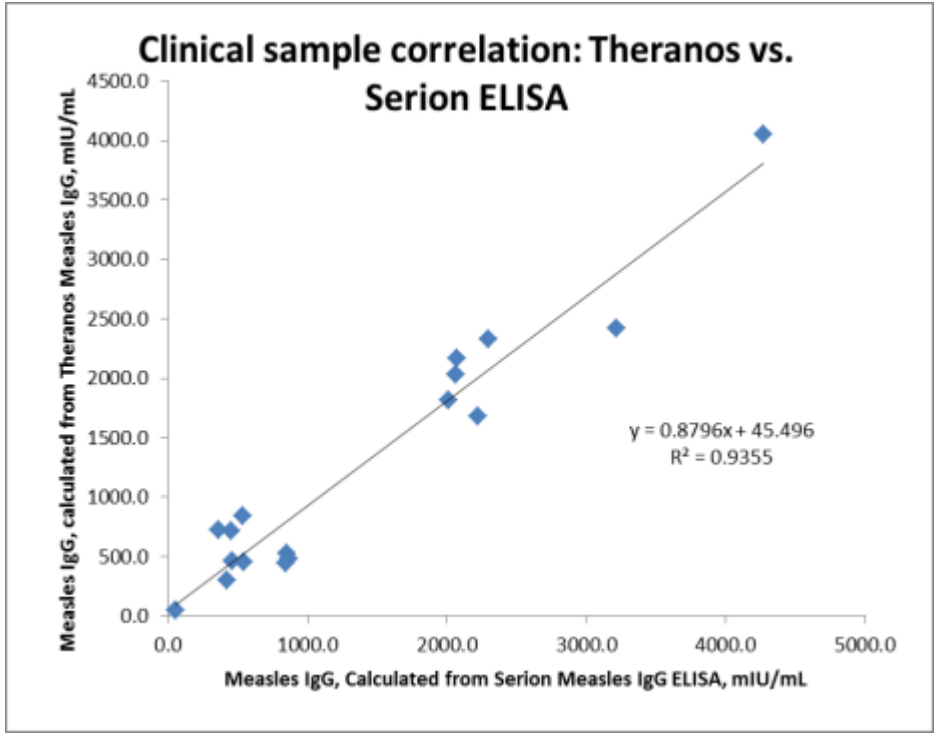
Sample	US Biological Ab Index	Immunetics Ab Index	Theranos Ab Index
10915791	3.49	4.43	2.35
10919479	0.54	0.25	0.32
10919480	1.17	0.43	0.53
10919776	3.96	4.71	1.57
10919778	1.66	2.09	1.13
10919847	5.15	9.18	113.95
10919848	0.58	0.26	0.24
10919849	0.61	0.22	0.21
10919906	2.06	0.58	0.33
10919907	2.72	8.36	24.21
10919908	3.79	9.06	14.76
10919970	3.59	0.23	1.01
10919972	3.33	4.71	5.45
10919973	2.14	7.00	5.01
10920987	4.33	9.10	36.45
10921154	1.17	0.24	0.86
10921214	0.89	0.33	0.25
10921215	2.31	0.55	0.50
10921305	2.03	2.81	1.26
10921353	0.83	0.29	0.38
10924272	4.29	4.96	4.53
10924273	0.83	0.20	0.26
10924274	3.21	0.20	0.45
10924275	0.47	0.14	0.14
10924276	1.81	2.65	1.71
10924347	3.54	7.24	6.07
10924348	0.76	0.17	0.24
10924351	3.38	6.55	6.40
10924352	4.07	7.74	17.42
10924353	1.84	2.12	1.21

Results reported as: Negative (green), Equivocal (Yellow), or Positive (Red) on the basis of Antibody index for each assay.

theranos

Measles IgG





theranos

Measles IgM

Samples	Theranos Ab Index	Theranos Result	GSD Measles Measles IgM Kit
1	0.48	NEG	NEG
2	0.34	NEG	NEG
3	0.32	NEG	NEG
4	0.37	NEG	NEG
5	0.37	NEG	NEG
6	0.40	NEG	NEG
7	0.31	NEG	NEG
8	0.44	NEG	NEG
9	0.42	NEG	NEG
10	0.44	NEG	NEG
11	0.32	NEG	NEG
12	0.32	NEG	NEG
13	0.33	NEG	NEG
14	0.31	NEG	NEG
15	0.33	NEG	NEG
16	0.33	NEG	NEG
17	0.32	NEG	NEG
18	0.38	NEG	NEG
19	0.43	NEG	NEG
20	0.32	NEG	NEG
21	0.33	NEG	NEG
22	0.24	NEG	NEG
23	0.30	NEG	NEG
24	0.31	NEG	NEG
25	0.29	NEG	NEG
26	0.30	NEG	NEG
27	0.33	NEG	NEG
28	0.31	NEG	NEG
29	0.33	NEG	NEG
30	0.20	NEG	NEG
33	0.29	NEG	NEG
34	0.27	NEG	NEG
35	0.38	NEG	NEG
36	0.33	NEG	NEG
42	22.77	POS	POS

theranos

Methadone

Sample ID (Urine)	CLIA Advia Results ng/ml	Theranos Result Mean ng/mL		% Recovery
U1	1286	OORH	Positive	OORH
U2	913	OORH	Positive	OORH
U3	700	898	Positive	128
U4	671	762	Positive	114
U5	551	575	Positive	104
U6	386	416	Positive	108
U7	289	248	Negative	86
U8	271	284	Negative	105
U9	217	216	Negative	100
U10	199	236	Negative	119
U11	685	727	Positive	106
U12	587	577	Positive	98
U13	446	471	Positive	105
U14	454	370	Positive	81
U15	406	372	Positive	92
U16	334	321	Positive	96
U17	184	196	Negative	107
U18	157	170	Negative	108
U19	151	163	Negative	108
U20	130	91	Negative	70
U21		749	Positive	75
U22		355	Positive	118

Sample ID	Nominal [Methadone] ng/ml	Inter-Cartridge RLU		Inter-Cartridge Conc. ng/ml		% Recovery	Theranos Result
		Mean	CV%	Mean	CV%		
P1	1200	6684	7.9	1048	13.8	87	Positive
P2	950	8297	11.0	742	15.2	78	Positive
P3	700	10397	8.4	534	10.0	76	Positive
P4	550	12294	6.8	433	8.1	79	Positive
P5	375	17688	5.4	295	5.3	79	Positive
P6	225	27217	10.2	198	10.2	88	Positive
P7	155	41133	31.4	140	26.4	90	Positive
P8	65	88034	13.4	61	15.7	93	Positive
P9	40	100276	2.5	50	3.6	124	Positive
P10	15	172327	16.8			OORL	Negative

theranos

Opiates

		Theranos		CLIA	
Sample [Urine]	[ng/mL]	[ng/mL]	Interpretation	[ng/mL]	Interpretation
Heroin	200	158	NEG	150	NEG
	650	693	POS	535	POS
	32	35	NEG	40	NEG
	17	12	NEG	NA	NA
	5	5	NEG	NA	NA
6-Acetylmorphine	20	26	NEG	24	NEG
	45	46	NEG	55	NEG
	677	625	POS	563	POS
	10	8	NEG	NA	NA
	301	335	POS	256	NEG
Codeine	75	84	NEG	94	NEG
	10	8	NEG	NA	NA
	15	13	NEG	33	NEG
	505	538	POS	1547	POS
	29	34	NEG	25	NEG
Biorad C2 (low opiate)	225	261	NEG	727	POS
Biorad C3 (low opiate)	375	487	POS	1426	POS
Biorad C1	120	143	NEG	271	NEG
Biorad C2	1500	1129	POS	NA	NA
Biorad C3	2500	1538	POS	NA	NA
Biorad C4	4000	1821	POS	NA	NA
Biorad N (negative)	75	1	NEG	NA	NA
Sunnylab	opiate	3040	POS	NA	NA
Biorad QN	50	3	NEG	NA	NA
Biorad QP	2904	694	POS	3404	POS
Biorad S1S	1500	454	POS	1259	POS
Biorad S2S	2500	615	POS	2273	POS
Biorad S1E (low opiate)	225	81	NEG	216	NEG

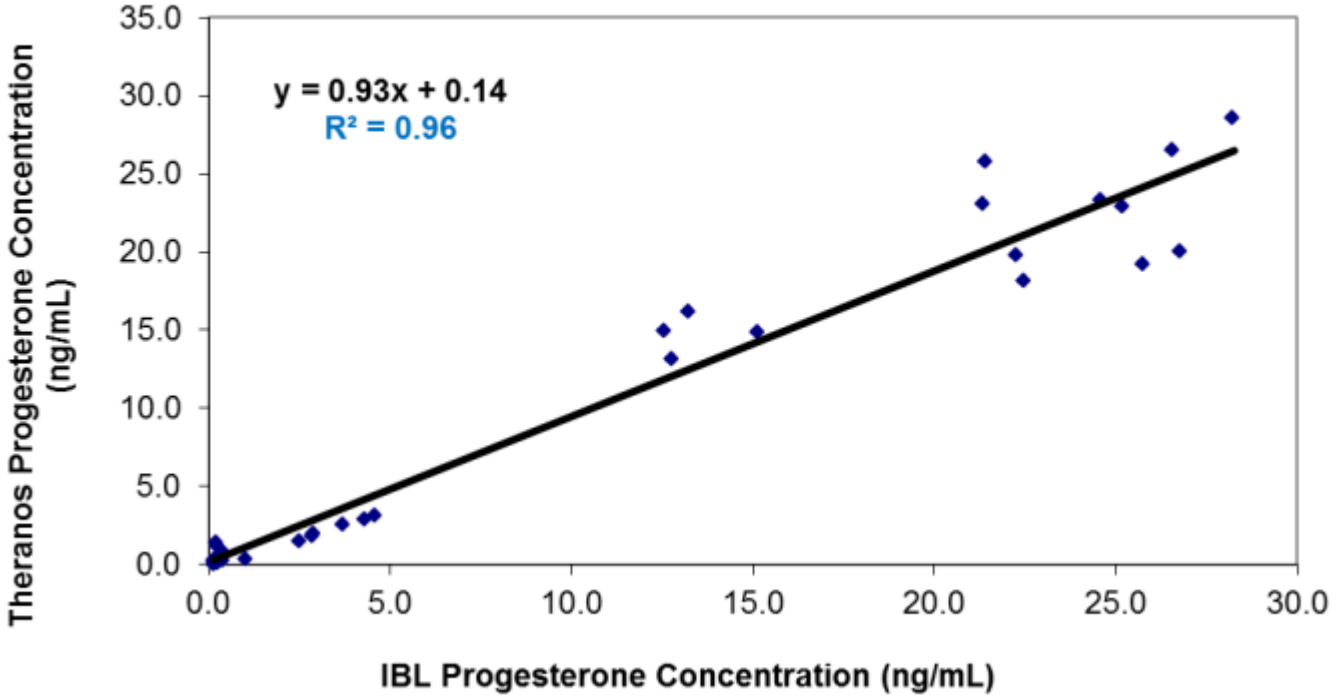
theranos

Parvovirus IgG

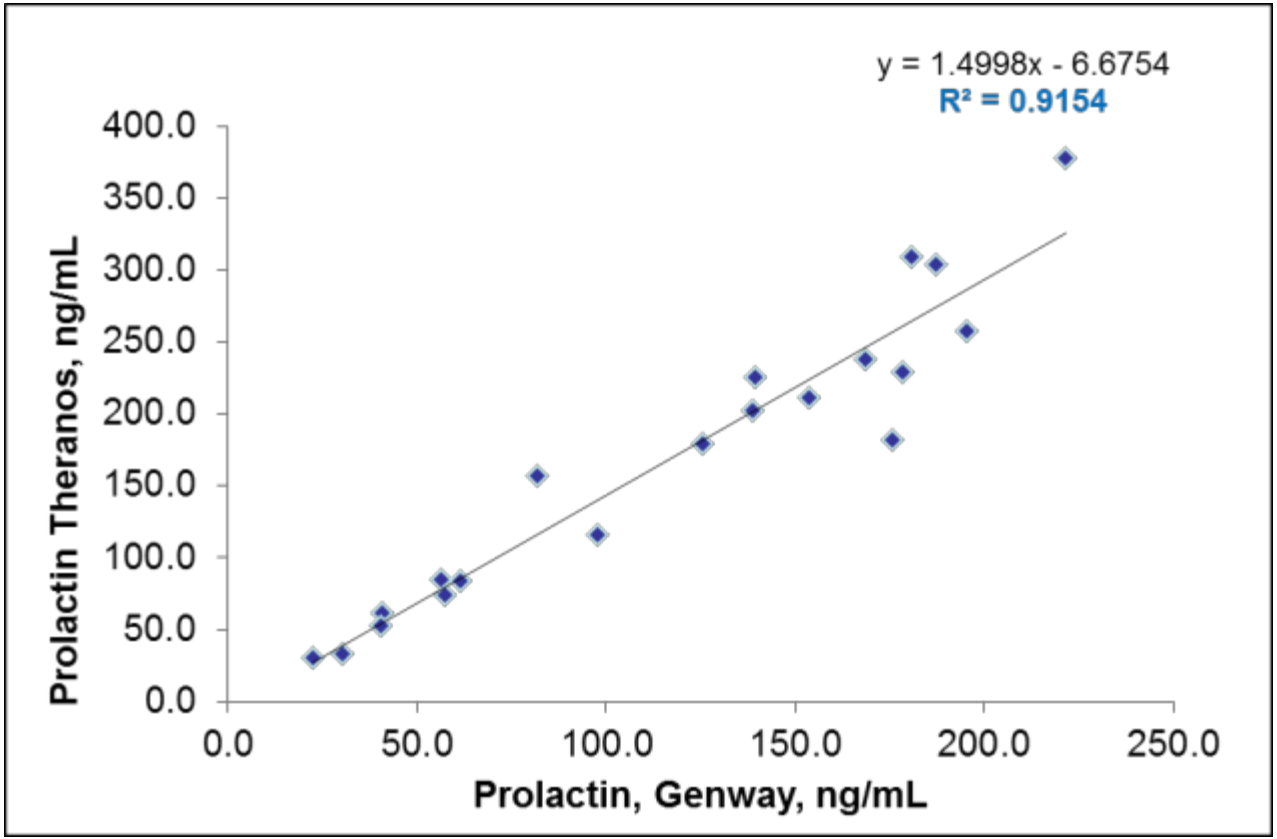
	Inter Cartridges		Theranos	Commerical Kit		Inter Cartridges		Theranos	Commerical Kit
Sample #	Ave RLU	%CV	Ab Index 10X	Ab Index	Sample #	Ave RLU	%CV	Ab Index 10X	Ab Index
1	31383	12	13.672	Positive	16	42529	21	18.528	Positive
2	43388	14	18.902	Positive	17	75966	16	33.095	Positive
3	26851	19	11.698	Positive	18	97569	13	42.506	Positive
4	7779	91	5.415	Positive	19	16431	16	7.158	Positive
5	56796	24	24.743	Positive	20	14844	25	6.467	Positive
6	51658	19	22.505	Positive	21	8411	18	3.664	Positive
7	88529	15	38.568	Positive	22	9534	16	4.154	Positive
8	31634	21	13.781	Positive	23	2920	24	1.272	Positive
9	22517	17	9.810	Positive	24	5005	20	2.180	Positive
10	15221	26	6.631	Positive	25	3755	13	1.636	Positive
11	53161	21	23.160	Positive	26	11917	21	5.192	Positive
12	19963	25	8.697	Positive	27	5569	12	2.426	Positive
13	75049	13	32.695	Positive	28	13348	18	5.815	Positive
14	52442	20	22.847	Positive	29	15502	18	6.753	Positive
15	108177	6	47.128	Positive	30	17819	17	7.763	Positive

theranos

Progesterone

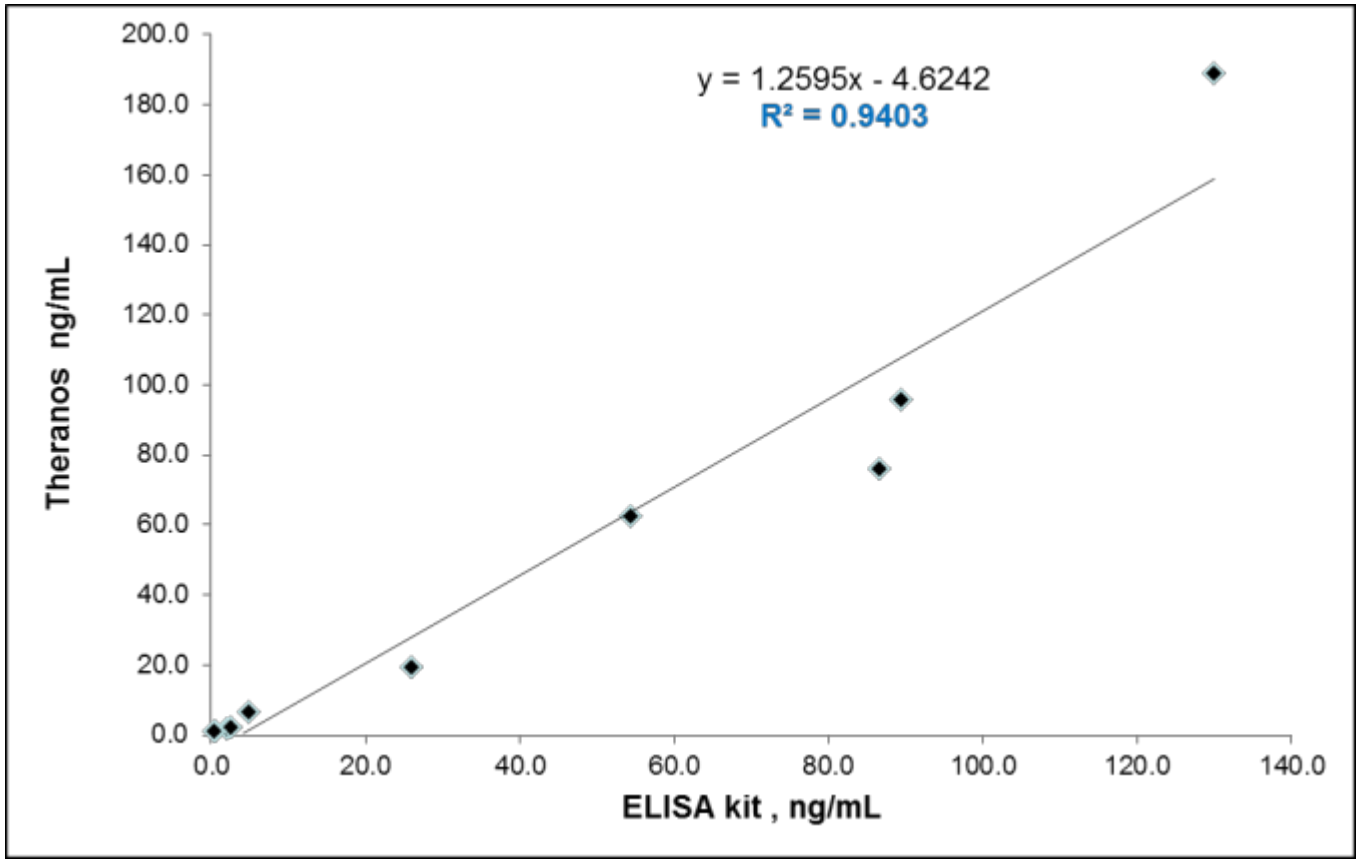


Prolactin



theranos

Total PSA



theranos

RF IgG antibody

Set Type	Sample#	Theranos S/Co	DRG Mean Conc (U/ml)	Alpco Mean Conc (U/ml)
ProMedDx	1	13.5	993	2143
	2	12.1	464	169
	3	20.2	298	121
	6	18.7	624	81
	9	10.8	366	70
	10	48.3	27	73
	11	22.1	357	987
	12	8.2	234	160
	13	12.3	35	94
	14	8.9	407	72
	15	3.9	505	217
	16	6.0	550	115
	17	2.3	61	221
	18	11.7	902	90
	23	1.7	113	129
	26	1.2	311	102
	31	16.7	540	120
	33	7.9	121	145
	37	4.6	128	97
	39	1.7	125	312
Bioreclammation (Normal Sera)	M11	0.1	19	69
	M12	0.1	12	29
	M13	0.1	15	57
	M14	0.1	16	31
	M15	0.1	8	30
	F11	0.1	15	52
	F12	0.1	10	24
	F13	0.1	16	51
	F14	0.1	17	54
	F15	0.1	10	24
Set 2	1	0.1	6	33
	2	0.1	5	28
	3	0.1	5	26
	5	0.1	6	36
	6	0.1	8	36
	20	0.1	5	24
	21	0.1	3	23
	22	0.8	5	45
	29	0.1	5	35

theranos

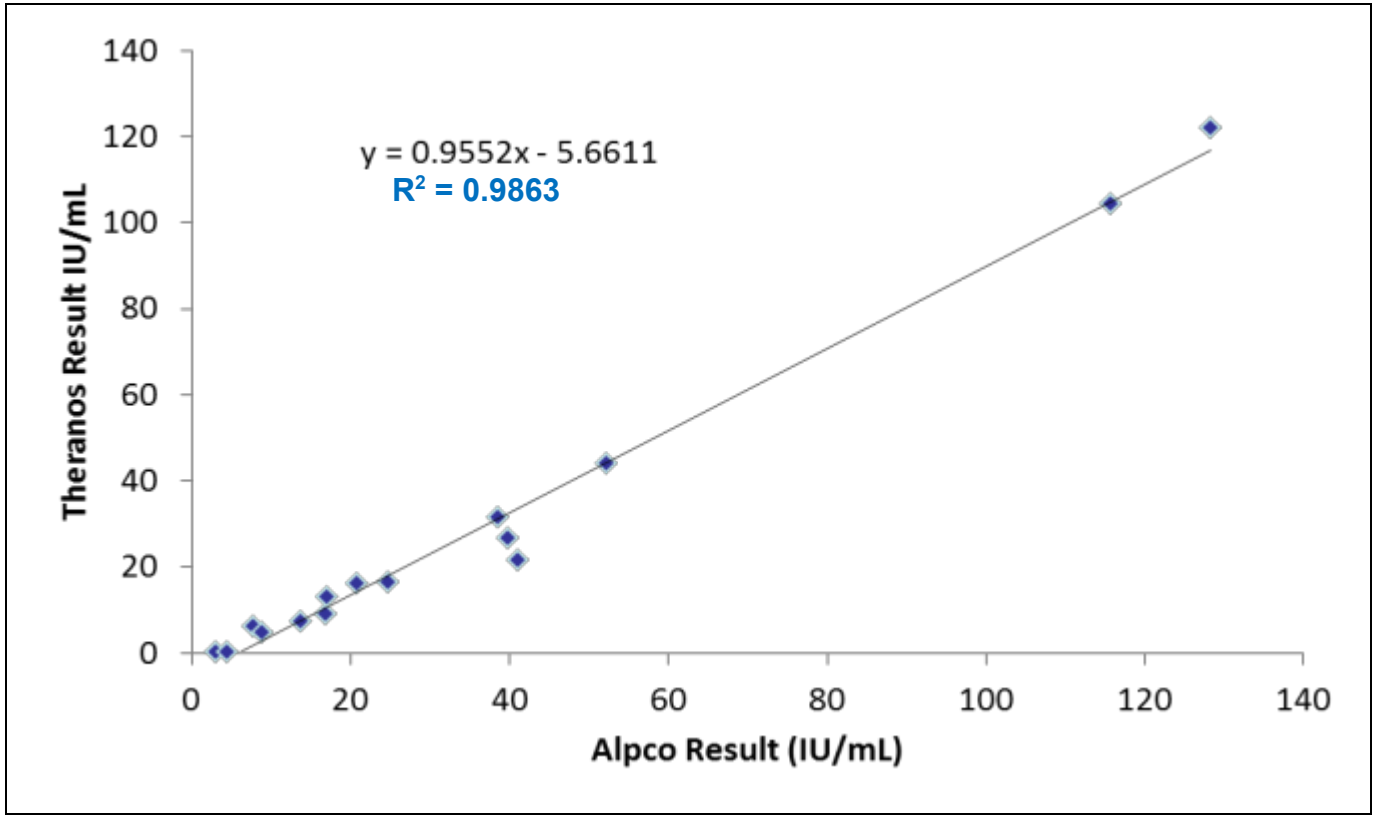
RF IgM antibody

Set Type	Sample ID	ALPCO	INOVA	DRG	Theranos
		Mean Conc(IU/mL)	Mean Conc(IU/mL)	Mean Conc(IU/mL)	Mean Conc (IU/mL)
Positive	19	166	573	347	190
	27	741	2191	815	1397
	38	159	291	25	1885
	40	22	20	25	OORL
	41	602	766	1187	1063
	42	858	1210	839	1577
	43	232	381	778	354
	44	78	187	19	891
	45	597	993	5603	1941
	46	484	988	1217	987
	47	273	914	2110	708
	48	316	914	722	744
	49	1048	2982	942	1652
	50	580	1071	97	1266
	51	258	632	221	545
	52	277	314	1728	645
	53	912	1423	980	1304
	54	179	128	OORL	835
	55	171	277	135	365
	56	93	116	100	125
	57	101	1805	956	NES
	58	552	948	348	1448
	59	413	783	863	900
	60	508	1561	328	1159

Set Type	Sample ID	ALPCO	INOVA	DRG	Theranos
		Mean Conc(IU/mL)	Mean Conc(IU/mL)	Mean Conc(IU/mL)	Mean Conc (IU/mL)
Negative	B1	0.9	0.6	4.0	OORL
	B2	0.9	0.2	OORL	OORL
	B3	1.5	1.9	OORL	OORL
	B4	2.0	1.1	7.0	OORL
	B5	1.2	1.0	3.2	OORL
	B6	1.0	0.6	OORL	OORL
	B7	0.7	0.2	OORL	OORL
	B8	0.7	0.3	OORL	OORL
	B9	8.0	9.3	13.3	OORL
	B10	1.6	0.9	7.2	OORL
	B11	1.4	1.1	OORL	OORL
	B12	3.4	2.9	0.6	OORL

theranos

Rubella Antibody



theranos

Rubella IgM

Samples	Theranos Ab Index	Theranos Result	Siemens Immulite 2000
1	0.12	NEG	NEG
2	0.13	NEG	NEG
3	0.10	NEG	NEG
4	0.29	NEG	NEG
5	0.54	NEG	NEG
6	0.26	NEG	NEG
7	0.19	NEG	NEG
8	0.22	NEG	NEG
9	0.12	NEG	NEG
10	0.13	NEG	NEG
11	0.07	NEG	NEG
12	0.06	NEG	NEG
13	0.06	NEG	NEG
14	0.15	NEG	NEG
15	0.07	NEG	NEG
16	0.29	NEG	NEG
17	0.09	NEG	NEG
18	0.18	NEG	NEG
19	0.10	NEG	NEG
20	0.09	NEG	NEG

Samples	Theranos Ab Index	Theranos Result	Siemens Immulite 2000
21	0.87	NEG	NEG
22	0.08	NEG	NEG
23	0.23	NEG	NEG
24	0.09	NEG	NEG
25	0.10	NEG	NEG
26	0.11	NEG	NEG
27	0.13	NEG	NEG
28	0.07	NEG	NEG
29	0.25	NEG	NEG
30	0.09	NEG	NEG
31	0.32	NEG	POS
32	2.95	POS	POS
33	3.36	POS	POS
34	2.11	POS	POS
35	3.70	POS	POS
36	3.91	POS	POS
37	6.06	POS	POS
38	1.59	POS	POS
39	3.56	POS	POS
40	7.48	POS	POS

theranos

Anti-Scl 70 antibody

Sample ID	Human Test Samples			ANTIBODY INDEX			
	Matrix	Species	Strain	Theranos	INOVA	IMMCO	IBL
CLN1	Serum	Normal	N/A	0.04	4	5	0.15
CLN2	Serum	Normal	N/A	0.04	4	2	0.07
CLN3	Serum	Normal	N/A	0.06	4	6	0.16
CLN4	Serum	Normal	N/A	0.09	4	2	0.13
CLN5	Serum	Normal	N/A	0.07	5	3	0.10
CLN6	Serum	Normal	N/A	0.06	3	4	0.16
CLN7	Serum	Normal	N/A	0.05	4	7	0.3
CLN8	Serum	Normal	N/A	0.11	5	5	0.15
CLN9	Serum	Normal	N/A	0.06	3	14	0.08
CLN10	Serum	Normal	N/A	0.05	3	6	0.12
CLN11	Serum	Normal	N/A	0.59	9	33	0.29
CLN12	Serum	Normal	N/A	0.04	5	5	0.22
CLN13	Serum	Normal	N/A	0.05	4	2	0.18
CLN14	Serum	Normal	N/A	0.04	11	174	3.06
CLS1	Serum	Autoimmune	Scleroderma	7.35	9	186	0.33
CLS2	Serum	Autoimmune	Scleroderma	0.72	19	70	0.73
CLS9	Serum	Autoimmune	Scleroderma	1.60	100	213	3.76
SS10	Serum	Autoimmune	Sjogren	1.02	5	91	0.19
SCL06	Serum	Autoimmune	Scleroderma	0.95	23	83	1.78
SCL16	Serum	Autoimmune	Scleroderma	6.35	3	194	3.07
SCL25	Serum	Autoimmune	Scleroderma	3.59	141	267	5.25
SCL29	Serum	Autoimmune	Scleroderma	3.04	124	257	2.66
SCL38	Serum	Autoimmune	Scleroderma	0.24	1	69	0.10
SCL39	Serum	Autoimmune	Scleroderma	3.33	146	293	5.58
SCL40	Serum	Autoimmune	Scleroderma	4.50	139	280	5.78

Samples are considered to be positive, borderline, or negative for Scl-70 antibodies if their Ab Indices are found to be greater than 1.1, between 0.9 and 1.1, or less than 0.9, respectively.

theranos

Anti-SSA antibody

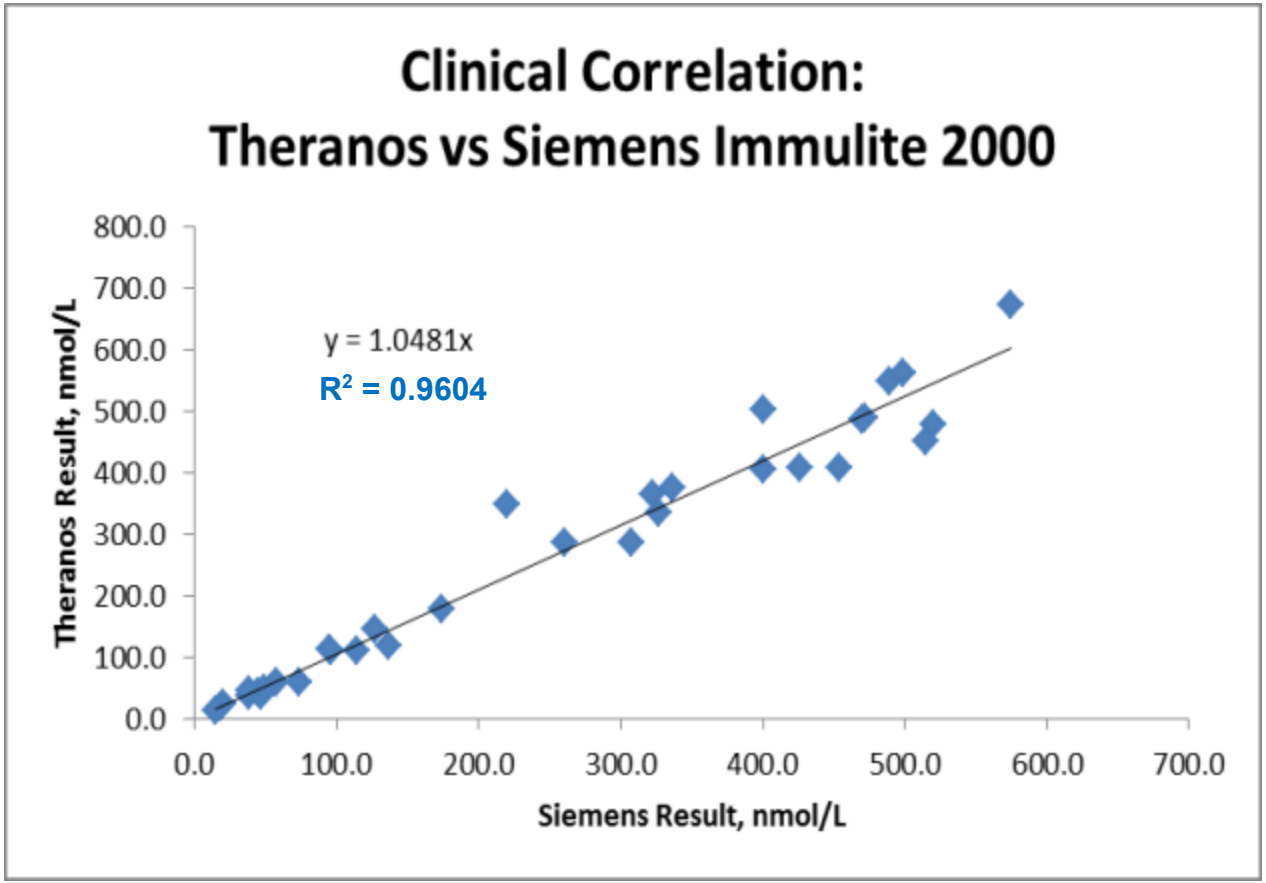
	Innova	Immco	IBL Int.	Theranos
Sample	Units	Result (EU/mL)	Ratio	Ab Index
Scl01	42.1	53	0.28	5.0
SCL02	3.9	4	0.38	0.6
ScL03	8.5	9	0.16	0.6
ScL04	17.8	10	0.42	0.4
ScL05	3.8	3	0.44	0.3
ScL06	3.7	2	0.24	0.5
ScL07	4.5	2	0.23	0.3
ScL08	3.7	2	0.22	0.4
ScL09	5.1	5	0.33	0.3
ScL10	17.4	8	0.29	1.1
SL01	102.9	78	5.51	212.8
SL02	4.7	5	0.30	0.5
SL03	3.8	3	0.23	0.4
SL04	70.8	66	5.50	2.5
SL05	3.6	2	0.58	0.3
SL06	59.5	49	5.29	0.9
SL07	4.5	7	0.24	0.6
SL08	86.1	69	5.32	1.7
SL09	3.6	11	0.67	0.6
SL10	3.7	3	0.19	0.4
Sjo01	108.6	57	5.87	33.2
Sjo02	3.5	3	0.23	0.3
Sjo03	125.6	74	6.22	373.3
Sjo04	24.2	57	2.45	14.7
Sjo05	96.9	78	5.61	203.2

The following criteria was applied to categorize the result as positive (red), negative (green) or borderline (yellow).

Ab Index > 1.1
Ab Index > 0.9, < 1.1
Ab Index < 0.9

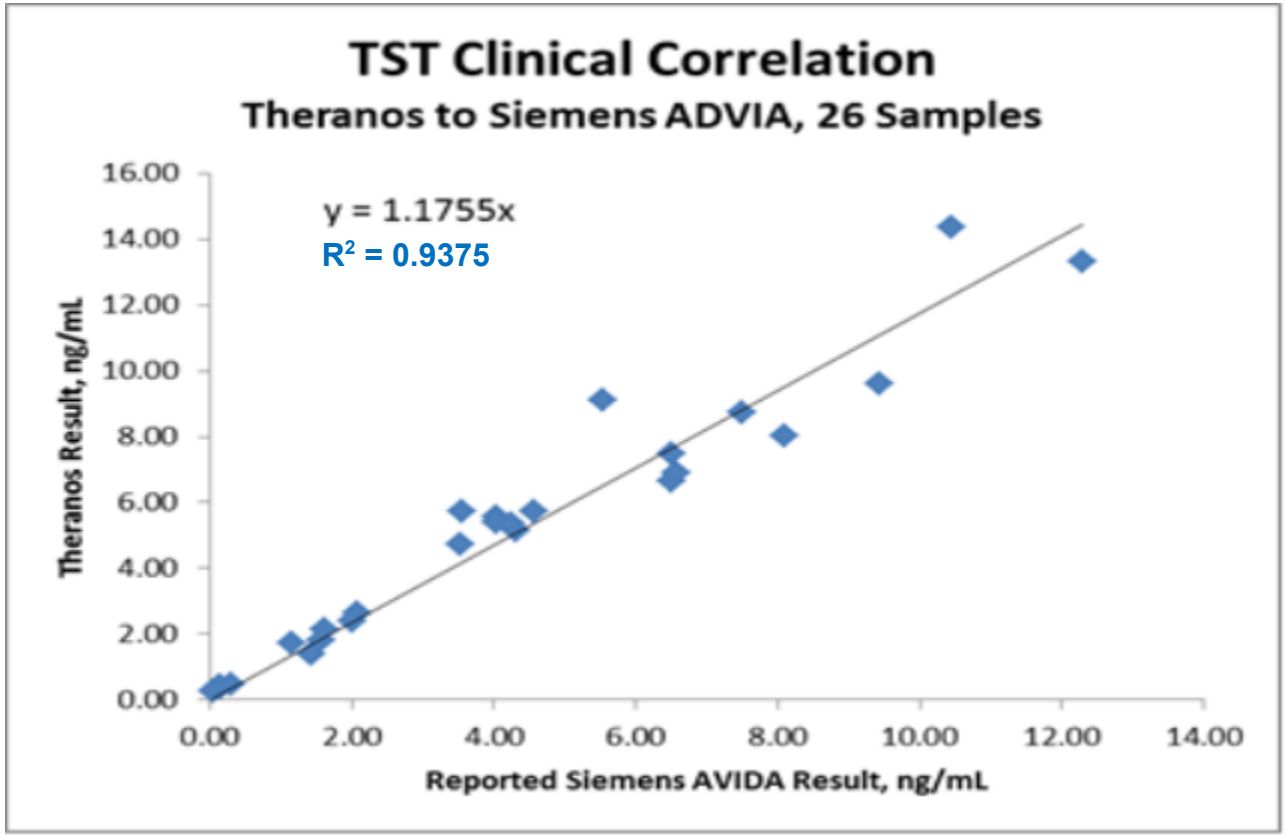
theranos

Sex Hormone Binding Globulin (SHBG)



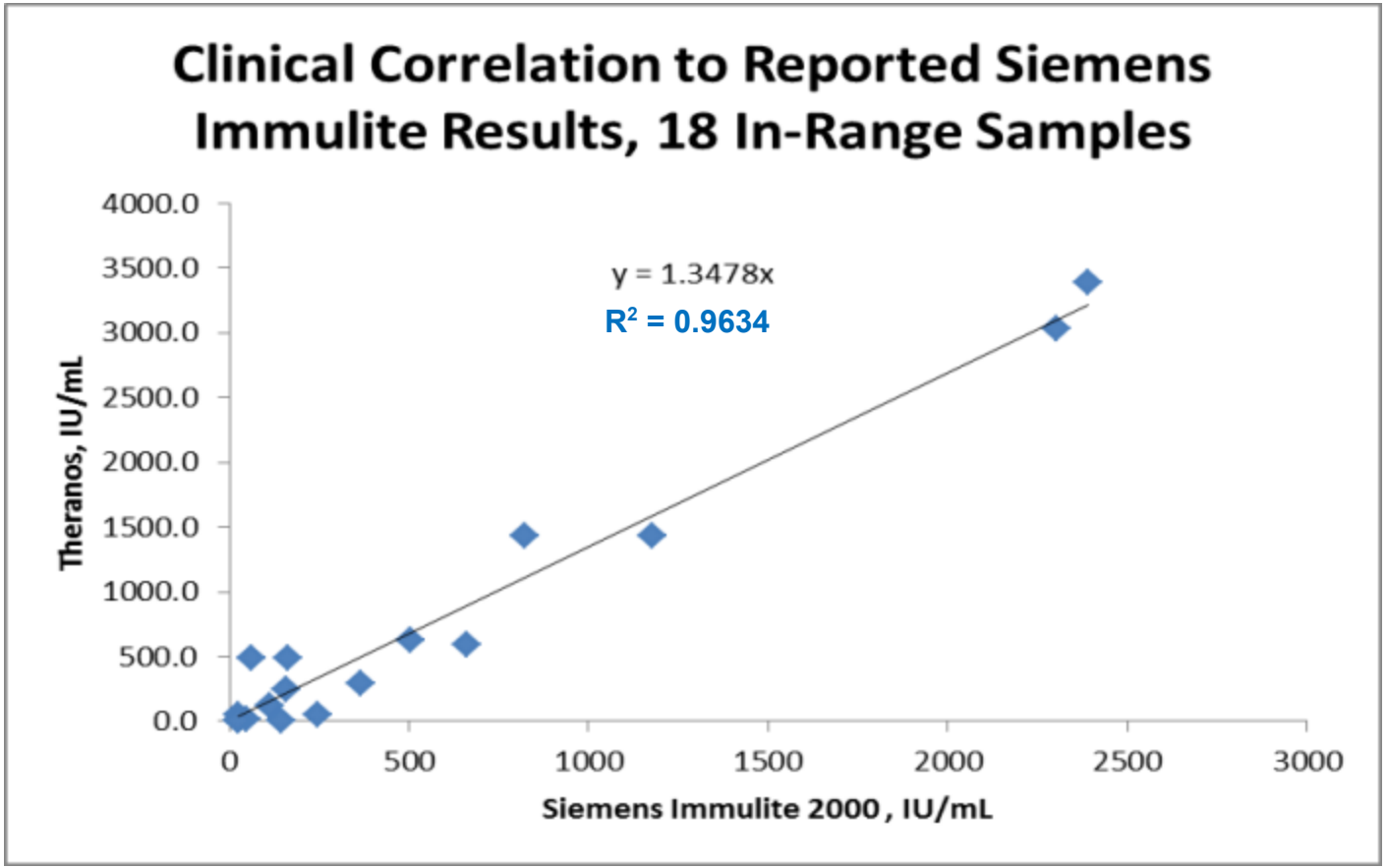
theranos

Total Testosterone



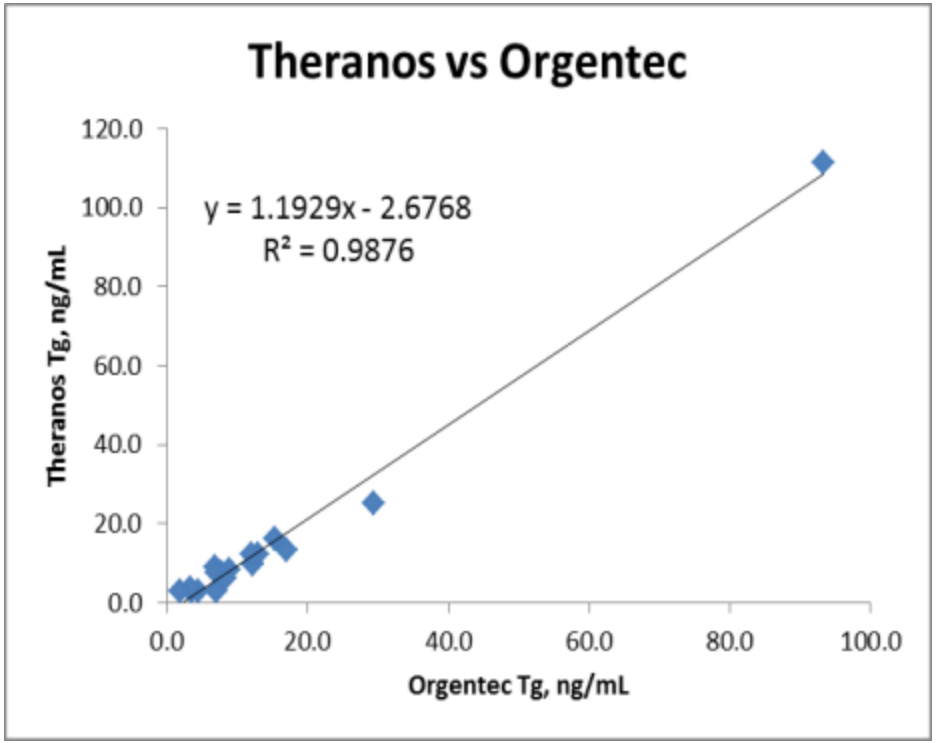
theranos

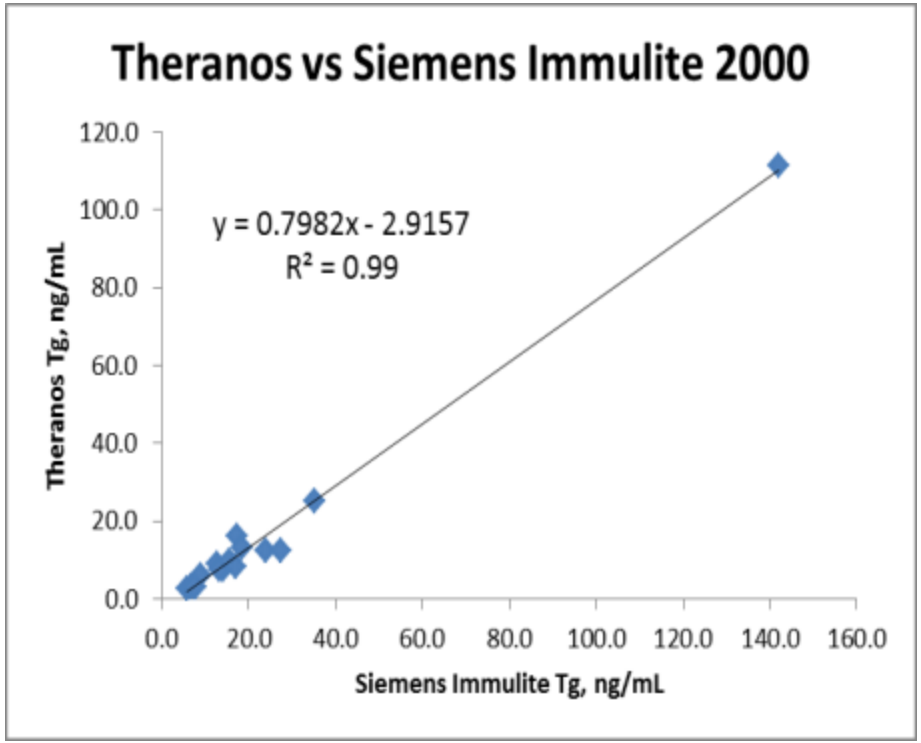
Anti-Thyroglobulin Antibody (IgG)



theranos

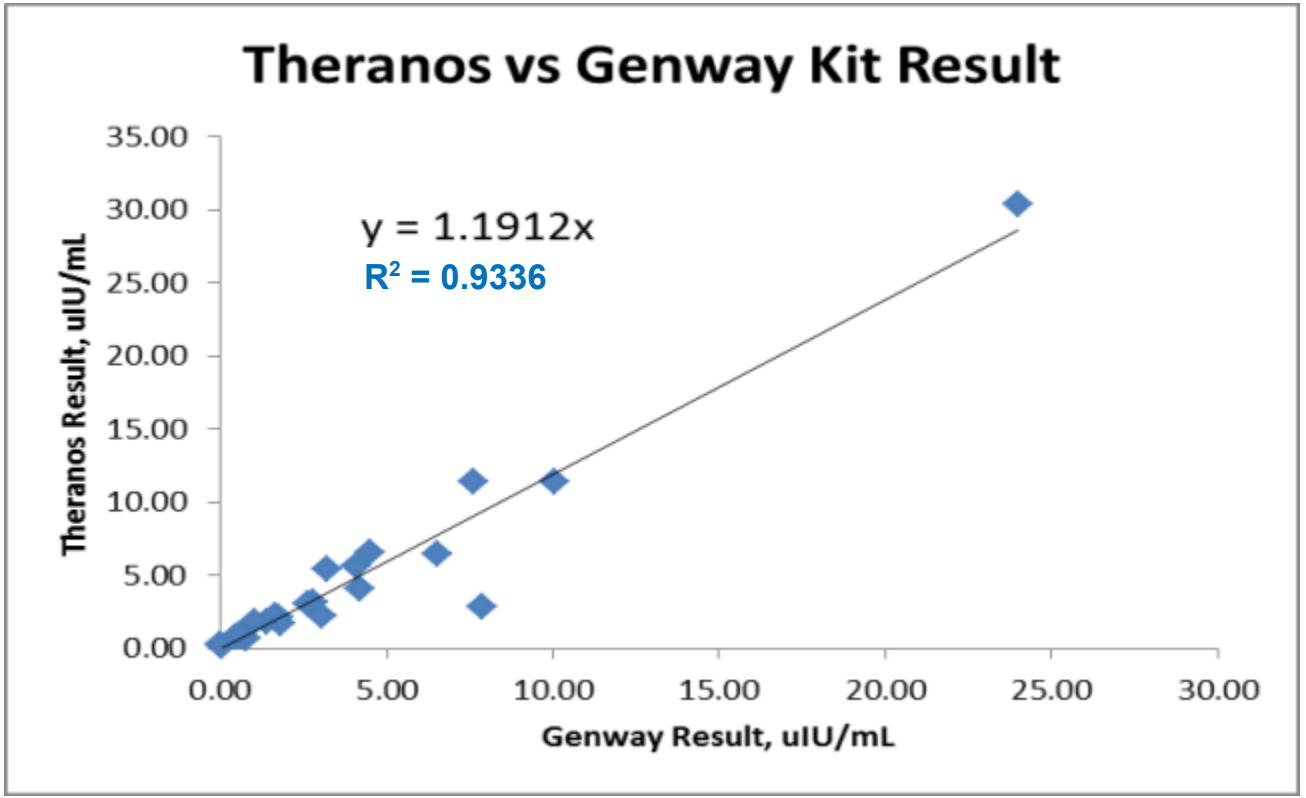
Thyroglobulin (antigen)





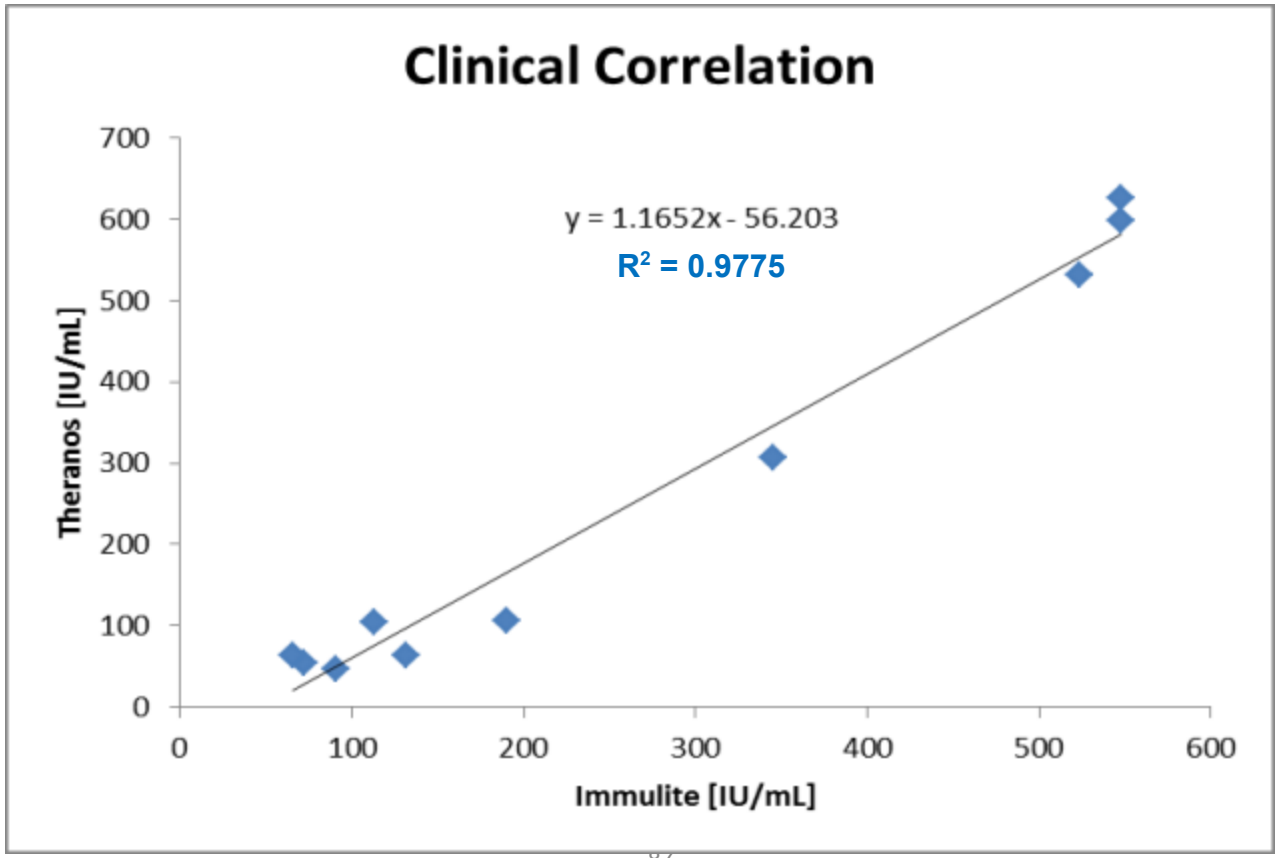
theranos

Thyroid stimulating hormone (TSH)



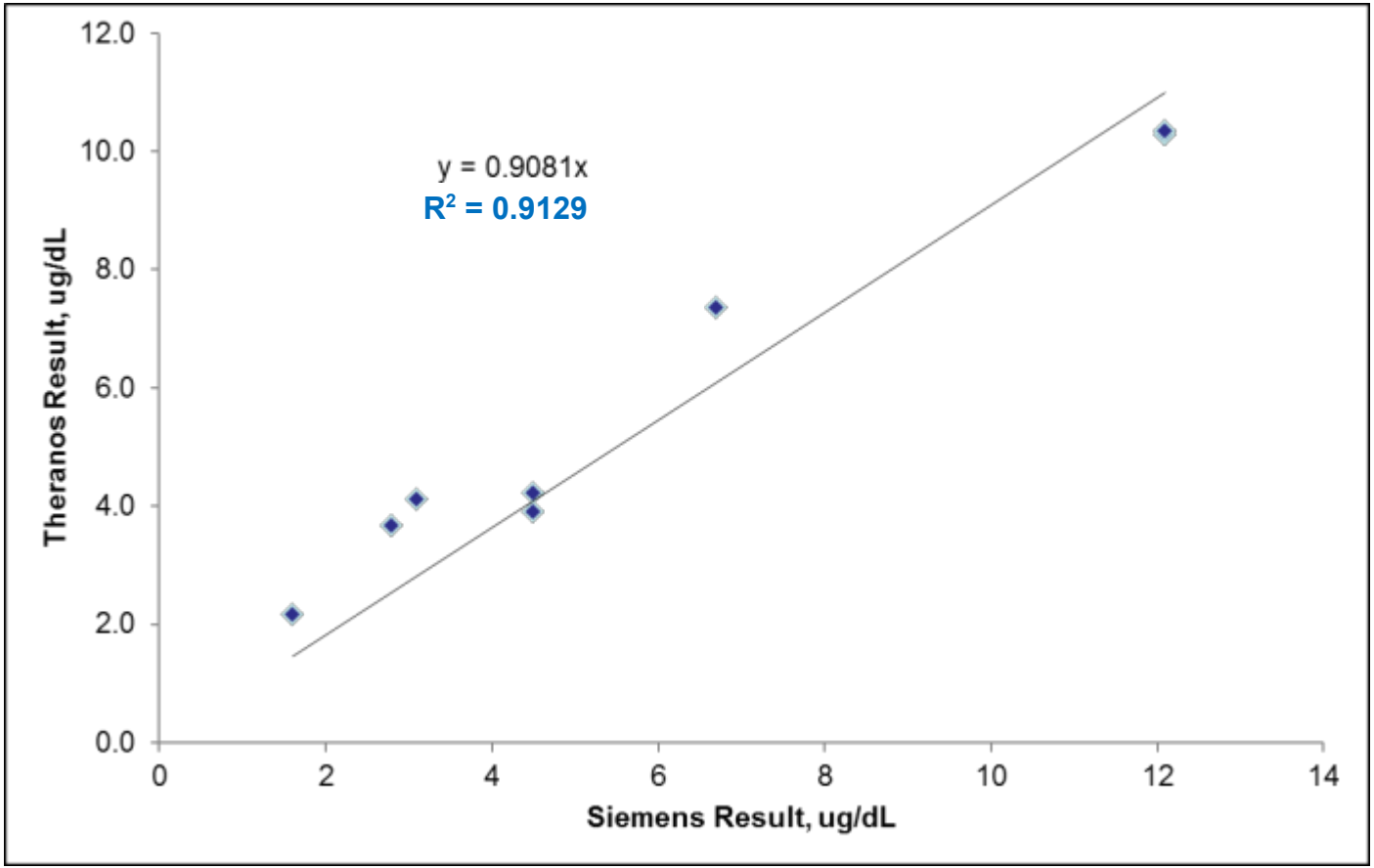
theranos

Thyroid peroxidase Antibody (TPO)

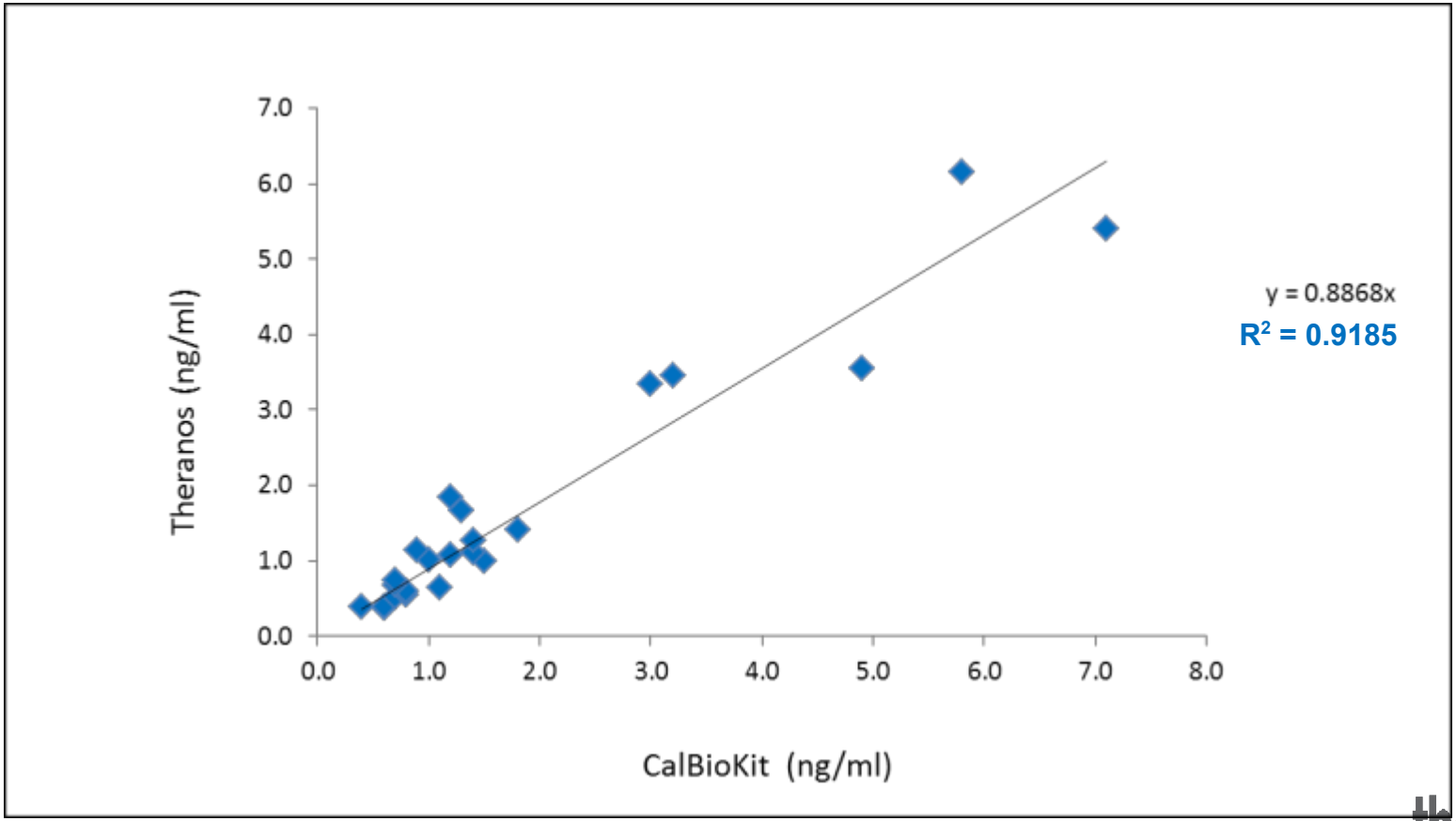


theranos

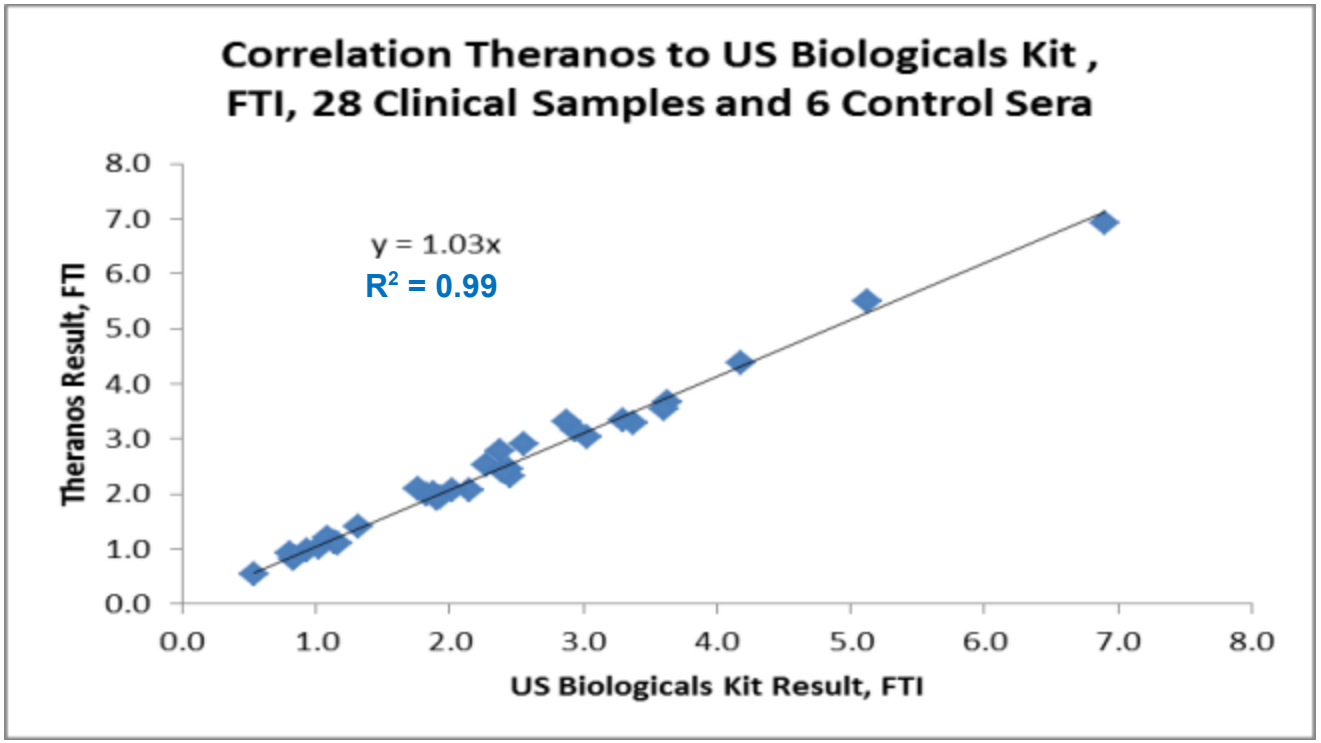
Total Thyroxine (TT4)



Total Triiodothyronine (TT3)



T3 Uptake



The T Uptake % is used to compute the Free Thyroxine Index (FTI) from the Total T4

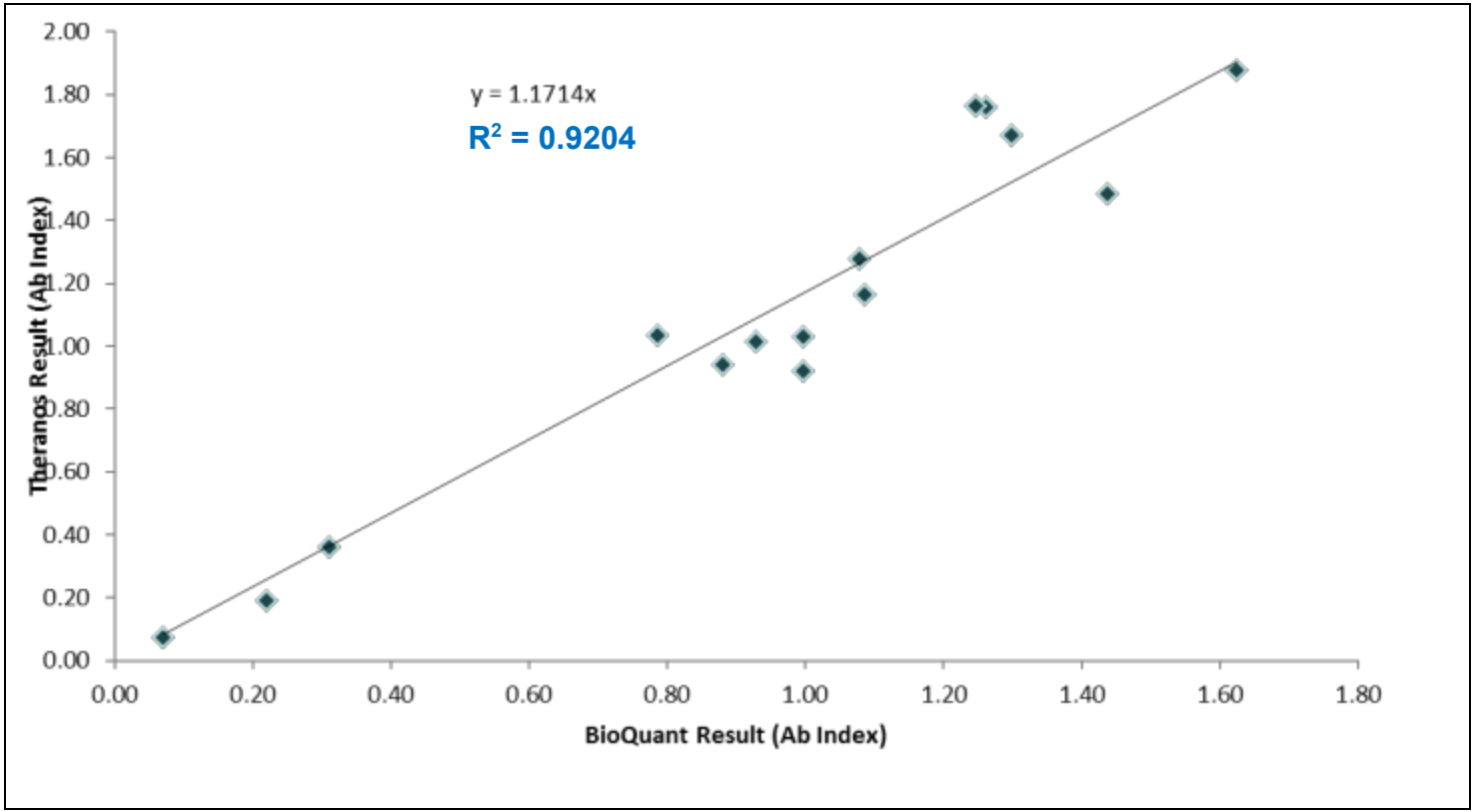
theranos

Transferrin

			Theranos TRF System 3.0				
			Signal (RLU)		[TRF, back-calculated], mg/dL		% Diff from Target
Sample #	Sample ID	SIEMENS_ADVIA	Inter-Cartridge		Inter-Cartridge		SIEMENS_ADVIA
		mg/dL	Mean	%CV	Mean	%CV	mg/dL
1	AD08	293	85703	21	279	18	-4.9
2	AD10	239	58676	14	205	11	-14.0
3	AD18	312	88990	19	287	16	-7.9
4	P7	201	37947	20	148	15	**-26.5**
5	P11	414	114683	11	358	10	-13.6
6	P12	333	93325	25	299	21	-10.1
7	L3	215	46044	20	171	15	-20.7
8	L4	290	64780	36	222	28	-23.6
9	6-BRH539339	259	60136	7	210	6	-19.1
10	10-BRH539334	314	86289	8	280	6	-10.8
11	P1	283	71893	9	241	7	-14.8
12	P3	232	56759	32	212	21	-8.6
13	BRH460987	345	100216	21	318	18	-7.8
14	BRH460980	269	56909	24	200	18	**-25.5**
15	PD6	248	52493	27	188	21	-24.1
16	PD7	115	21820	28	99	20	-14.2
17	PD8	276	82295	21	269	18	-2.4
18	PD9	229	49823	24	163	30	**-28.8**
19	PD10	147	26214	25	113	17	-23.3
N/A	IRMM	236	54947	15	195	12	-17.2
20	AD03	312	64128	27	234	17	**-25.1**
21	AD05	247	49099	33	187	23	-24.3
22	AD07	320	77237	26	256	21	-20.1
23	AD11	208	40937	35	156	26	**-25.1**
24	7-BRH539338	299	62332	41	215	32	**-28.1**
25	8-BRH539336	300	39212	20	151	15	**-49.5**
26	9-BRH539340	239	72963	16	244	13	2.1
27	PD11	284	42540	39	160	29	**-43.6**

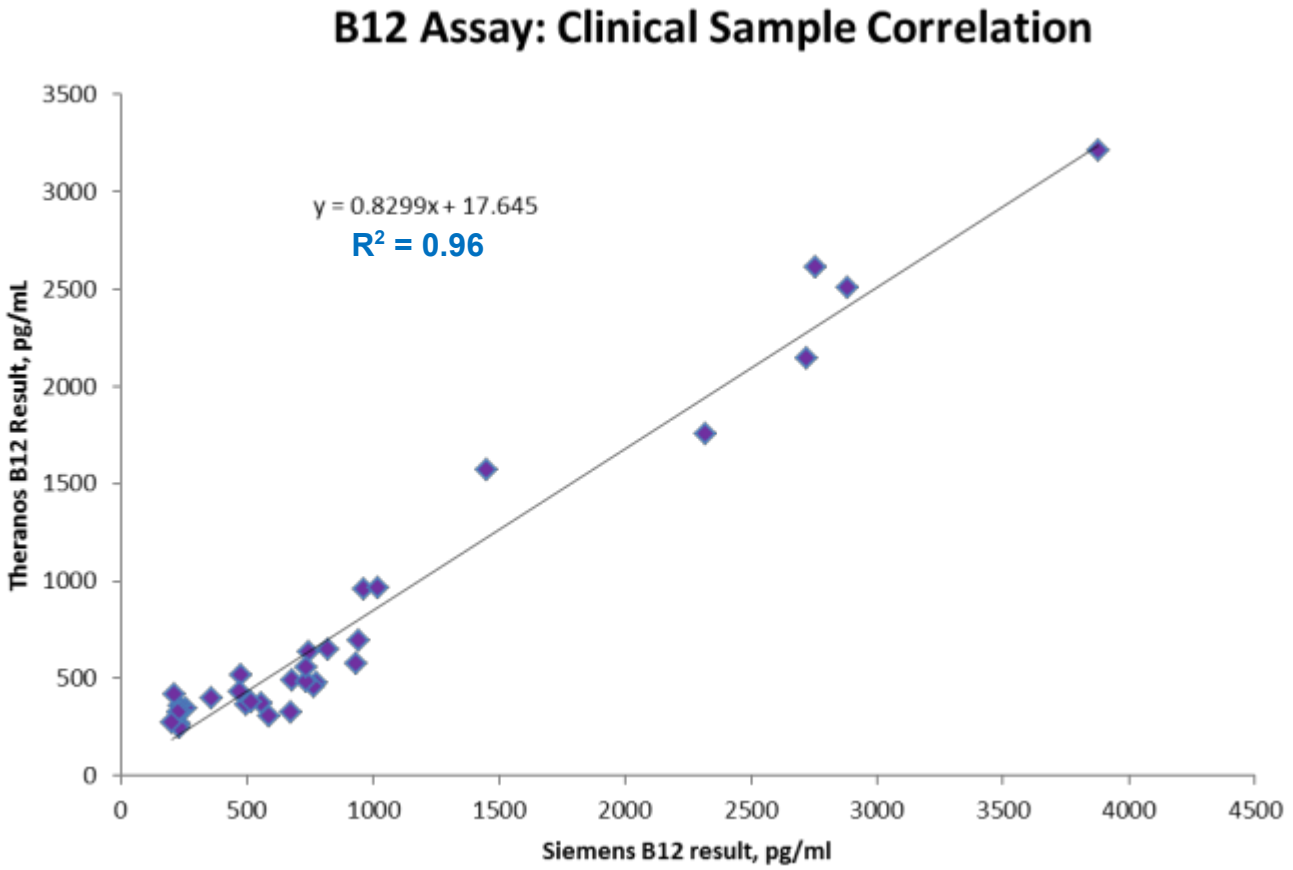
theranos

Varicella Zoster virus - IgG



theranos

Vitamin B12



theranos

VZV – IgG Precision

Inter-Analyzer Precision, Concentration (IU/mL)

			Intra-Cartridge			Inter-Cartridge	
Analyzer	Tip 1	Tip 2	Mean	CV %	% Recovery	Mean	CV %
1	0.26	0.27	0.26	4.1	86	0.31	7.2
2	0.34	0.35	0.35	1.1	113		
3	0.30	0.36	0.33	11.4	108		
4	0.26	0.28	0.27	4.8	89		
5	0.30	0.31	0.30	2.1	99		
6	0.28	0.27	0.28	3.6	90		
7	0.29	0.31	0.30	2.7	98		
8	0.32	0.32	0.32	0.3	104		
9	0.30	0.28	0.29	6.1	95		
10	0.32	0.33	0.32	1.0	106		
11	0.28	0.27	0.27	0.8	89		
12	0.30	0.32	0.31	4.4	100		
13	0.29	0.32	0.31	7.5	100		
14	0.35	0.32	0.34	4.8	109		
15	0.35	0.33	0.34	4.0	111		
16	0.31	0.31	0.31	1.2	101		
17	0.29	0.33	0.31	8.8	100		
18	0.31	0.25	0.28	16.8	91		
19	0.32	0.29	0.30	6.3	99		
20	0.29	0.31	0.30	5.9	98		
21	0.30	0.32	0.31	4.3	100		
22	0.33	0.31	0.32	4.7	104		
23	0.33	0.32	0.32	1.9	105		
24	0.33	0.31	0.32	5.0	103		

theranos

VZV – IgG Precision

Precision and Accuracy for 3 Days/Lots, Concentration (IU/mL)
N = 3 cartridges per point

[VZV IgG] IU/mL	Day/Lot 1			Day/Lot 2			Day/Lot 3			Inter-Lot		
	Mean Conc.	CV %	% Rec.	Mean Conc.	CV %	% Rec.	Mean Conc.	CV %	% Rec.	Mean Conc.	CV %	% Rec.
11.00	9.97	22.3	91	11.40	9.5	104	9.83	33.6	89	10.47	18.9	95
5.50	4.65	2.4	85	6.65	13.6	121	6.09	15.9	111	5.94	18.5	108
2.75	2.33	15.3	85	3.07	7.3	112	2.65	8.1	96	2.68	14.9	98
1.38	1.27	13.5	92	1.46	10.6	106	1.46	12.3	107	1.40	12.6	101
0.69	0.65	11.1	94	0.75	6.7	109	0.71	6.9	104	0.70	9.6	102
0.34	0.32	7.8	93	0.34	13.7	98	0.35	4.0	103	0.34	9.2	98
0.17	0.17	9.2	99	0.18	9.7	105	0.17	1.9	98	0.17	7.5	101
0	OORL	-	-	OORL	-	-	OORL	-	-	OORL	-	-
Positive Control	4.25	8.6	-	3.70	11.7	-	4.25	9.3		4.05	11.0	-
Negative Control	OORL	-	-	OORL	-	-	OORL	-	-	OORL	-	-

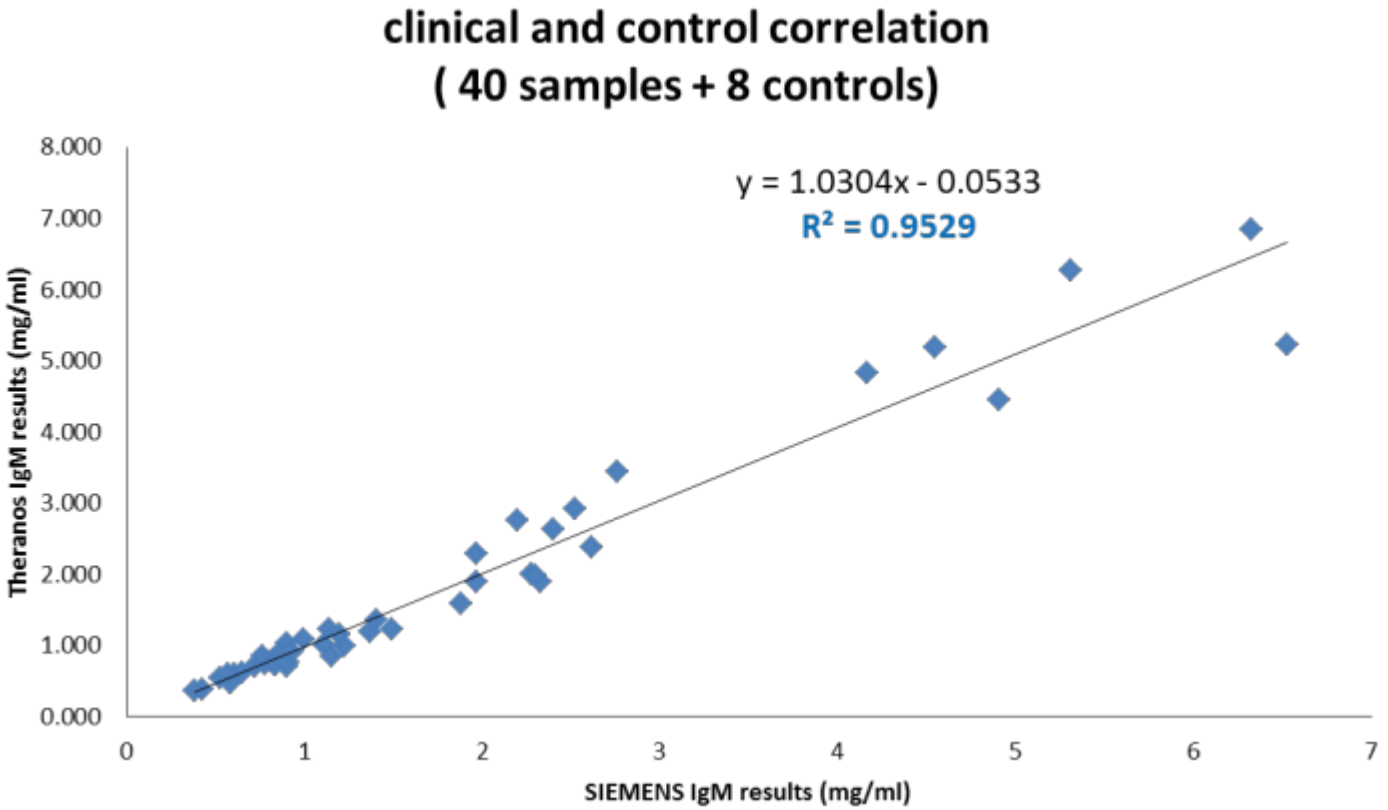
theranos

West Nile IgM

	Recombinant WNV Ag		NCA		Theranos		Focus		Panbio	
Samples	**Mean**	**CV**	**Mean**	**CV**	**S/co**	**Result**	**S/o**	**Result**	**S/o**	**Result**
PWN 901-1.5 Member 1	2391	13	297	25	0.23	Negative	0.00	Negative	0.20	Negative
PWN 901-1.5 Member 2	2481	23	319	4	0.24	Negative	0.00	Negative	0.20	Negative
PWN 901-1.5 Member 3	2380	21	417	14	0.22	Negative	0.00	Negative	0.20	Negative
PWN 901-1.5 Member 4	3144	9	398	22	0.30	Negative	0.10	Negative	0.20	Negative
PWN 901-1.5 Member 5	165647	20	303	9	18.34	Positive	4.10	Positive	2.00	Positive

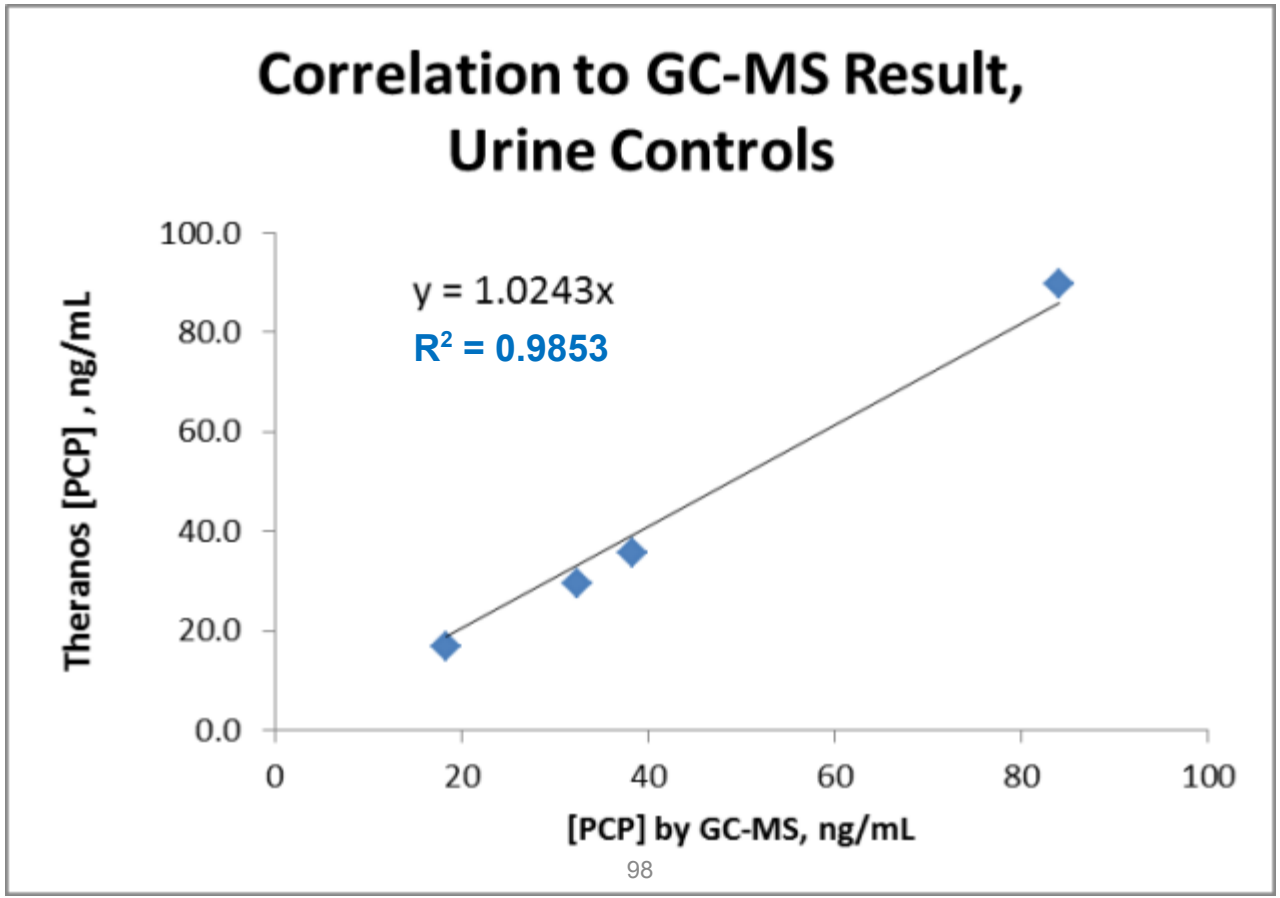
theranos

Human IgM



theranos

PCP : Calibration Verification



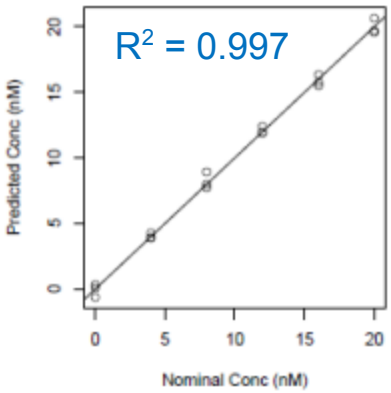
theranos

general chemistry

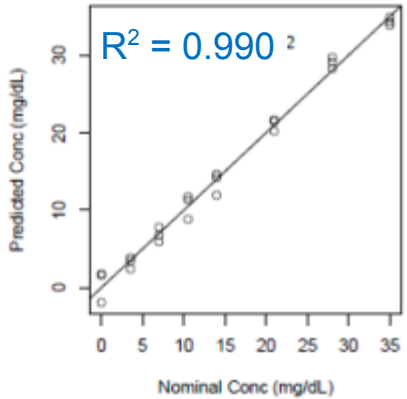
theranos

Routine Test Validations Demonstrate High Correlation Coefficients Across Clinical Range

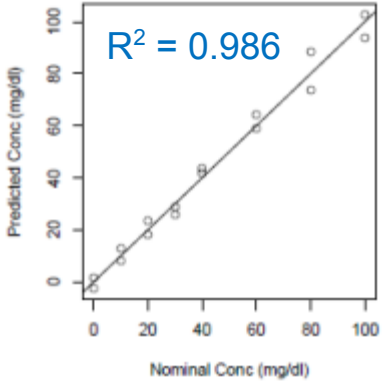
ALP



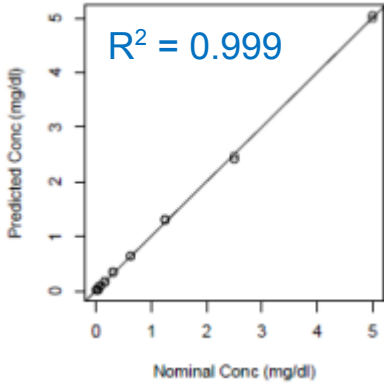
Chloride



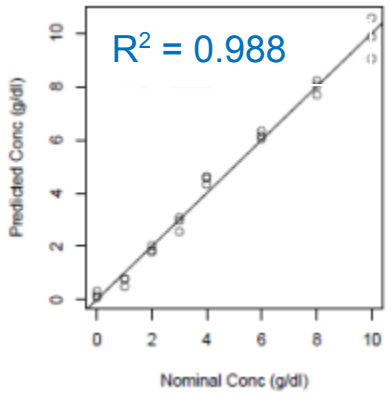
Cholesterol



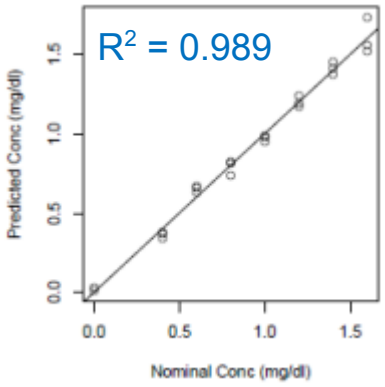
Total Bilirubin



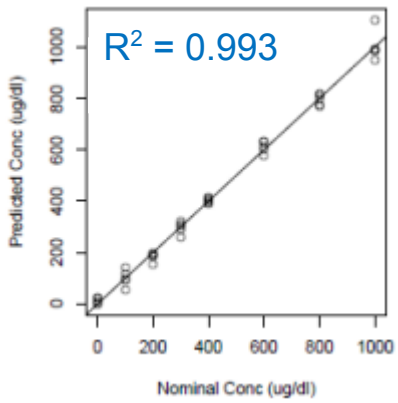
Total Protein



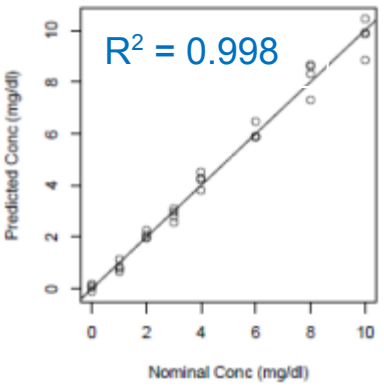
Phosphorous



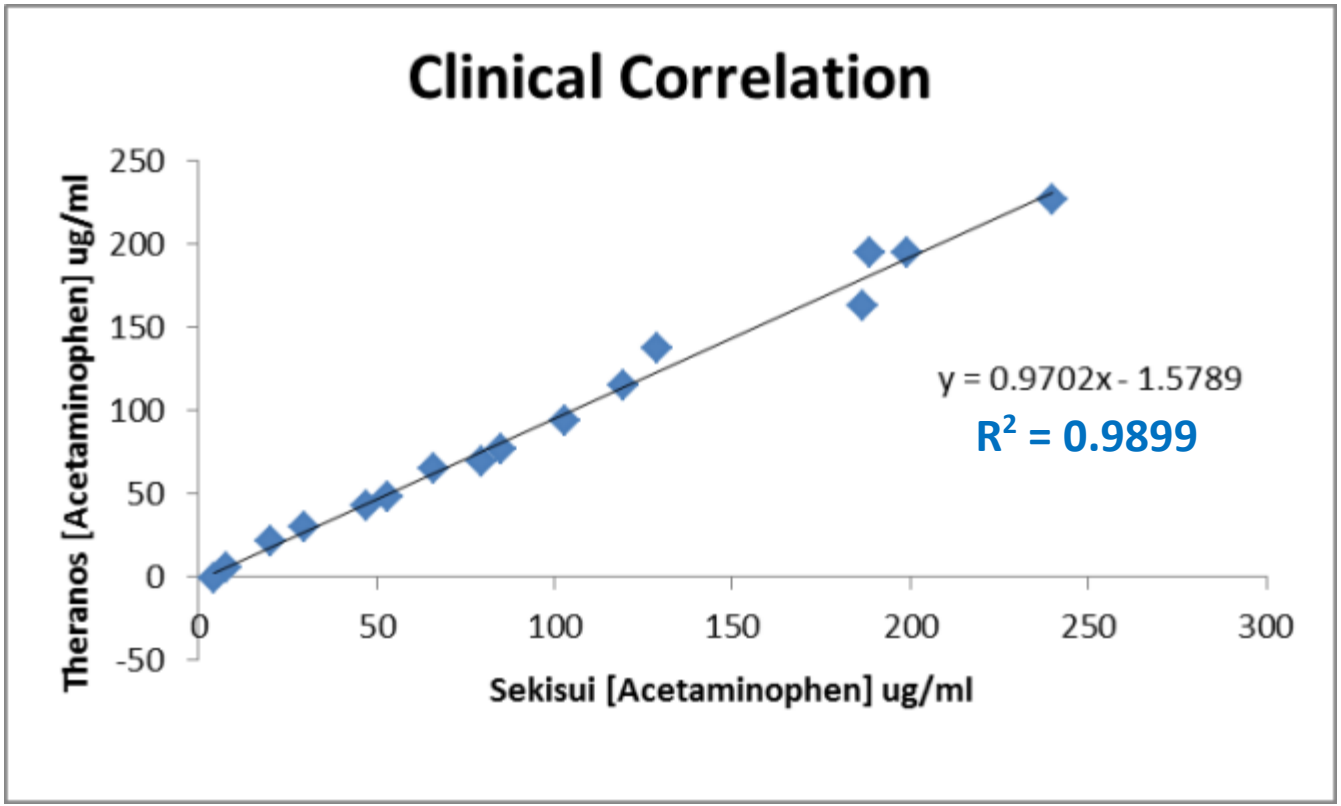
Iron



Uric Acid

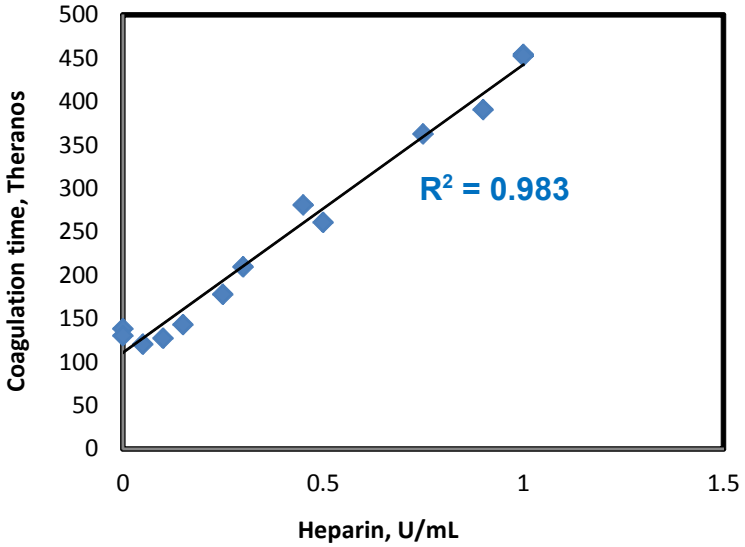


Acetaminophen in Plasma (Lithium Heparin)

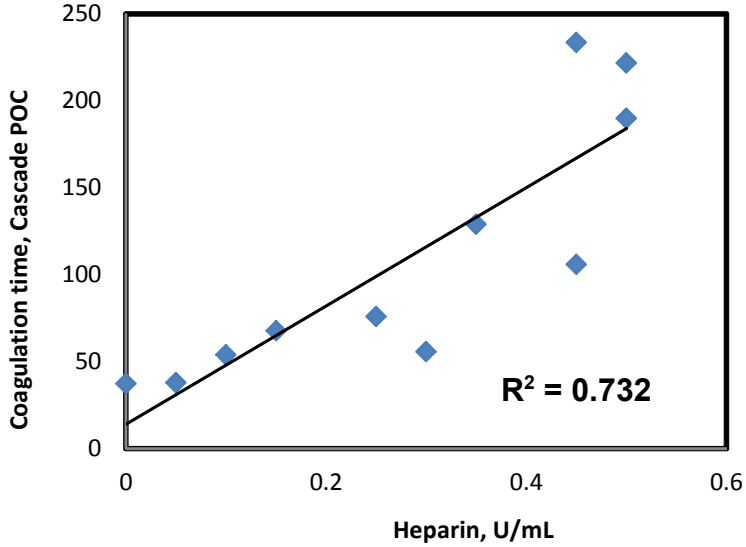


theranos

Activate Partial Thromboplastin Time (aPTT) Plasma spiked with Heparin



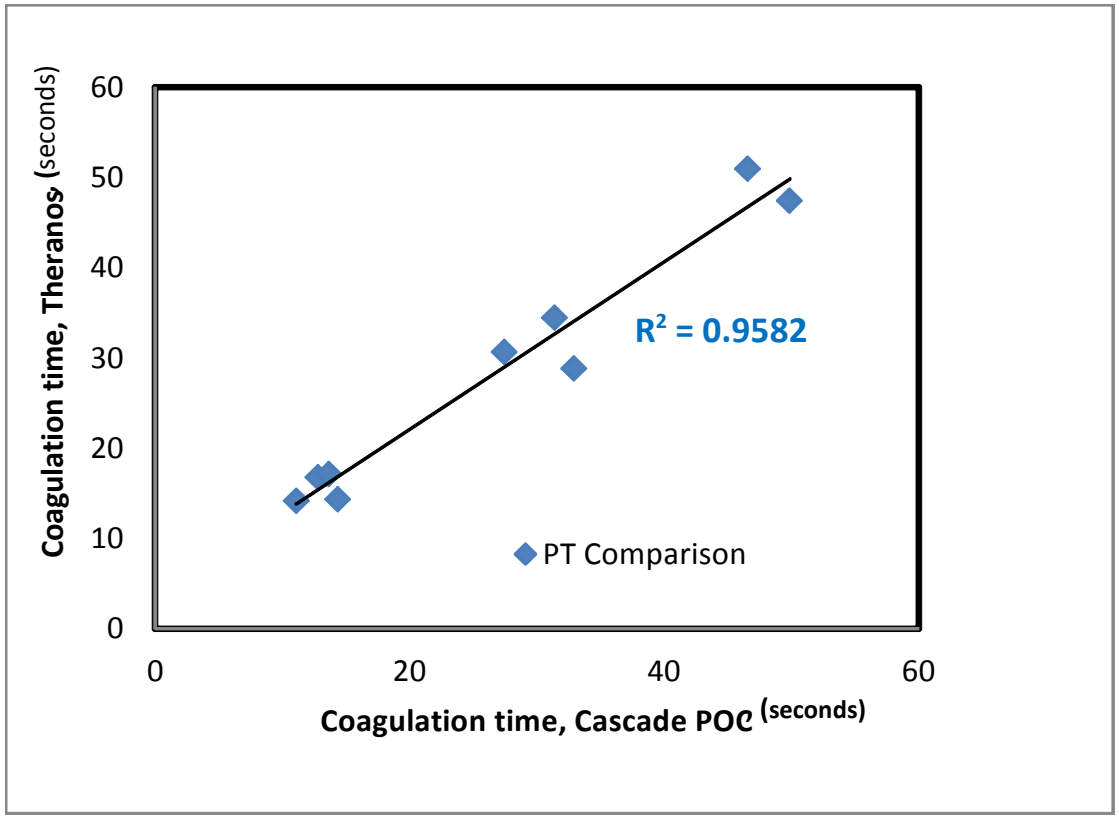
Theranos results



Commercially available POC device results

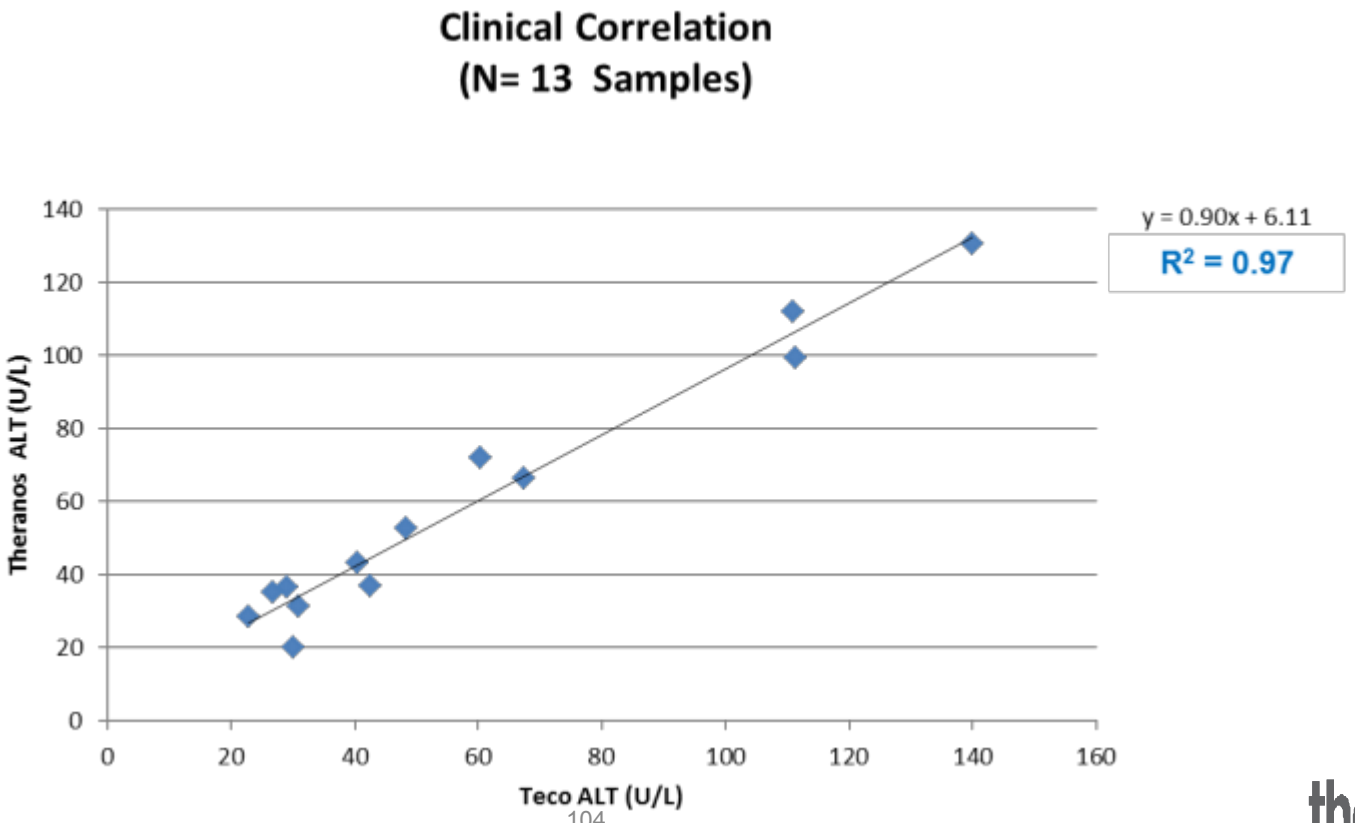
theranos

PT results – Clinical samples of patients on Coumadin

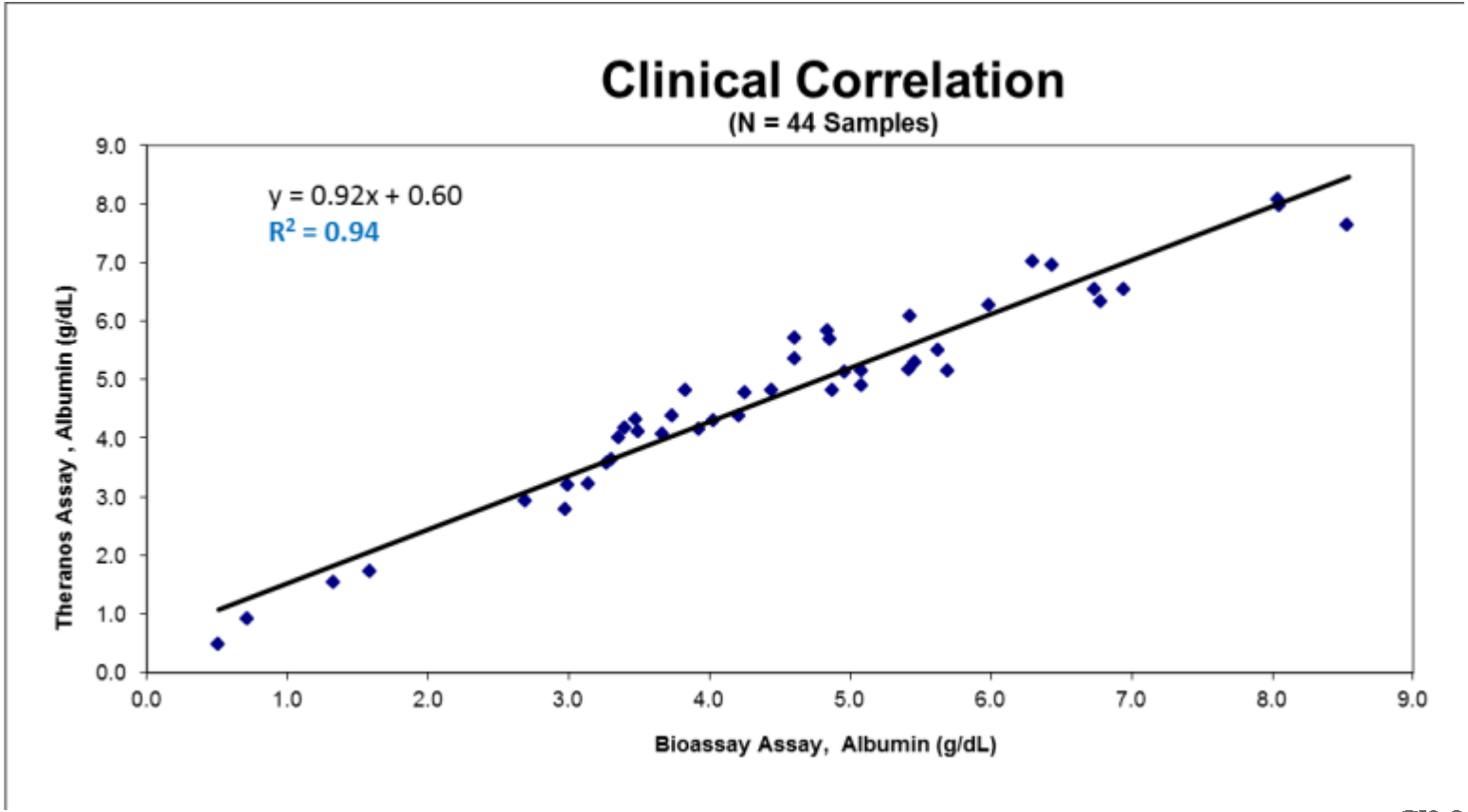


theranos

Alanine Transaminase (ALT)

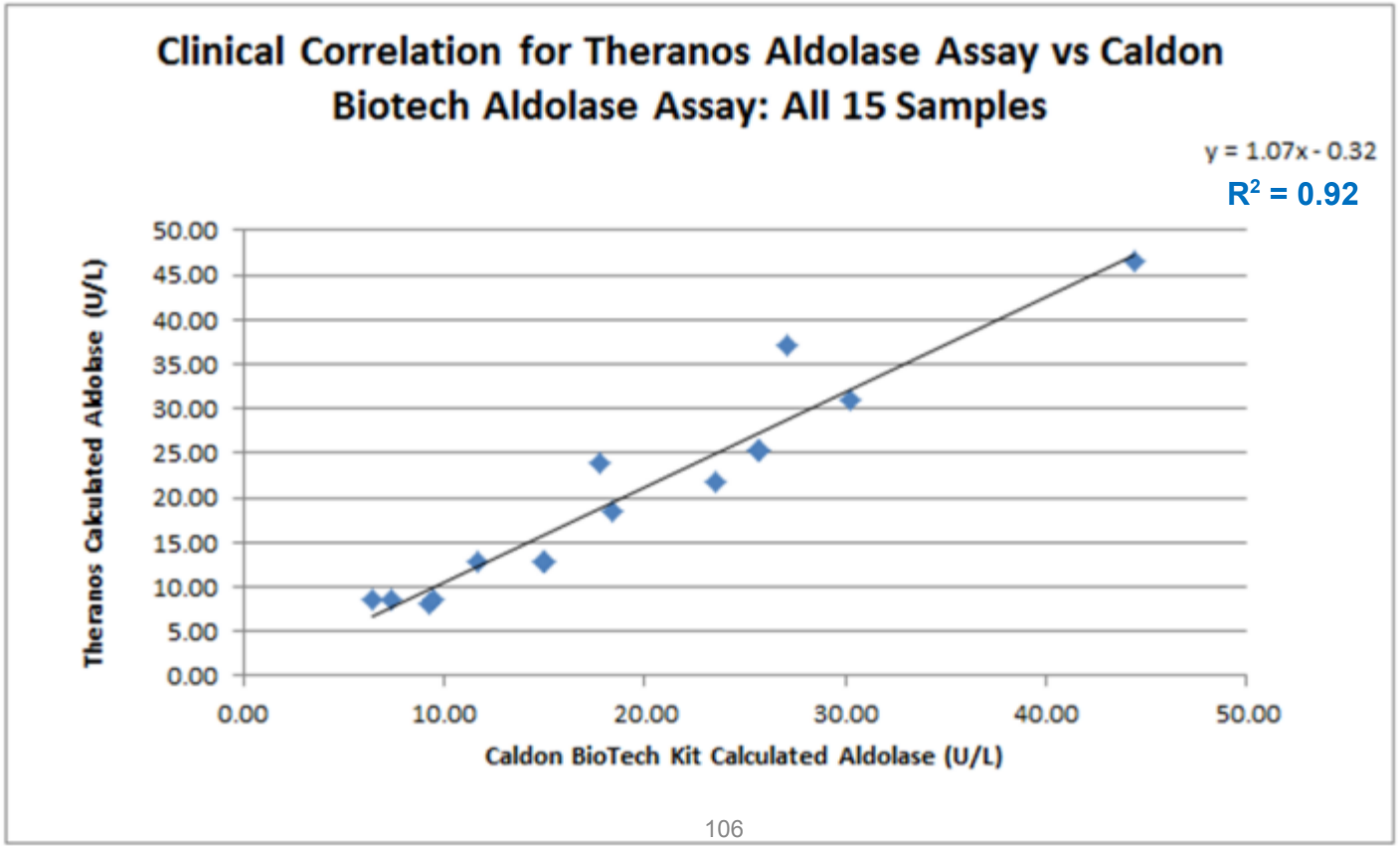


Albumin



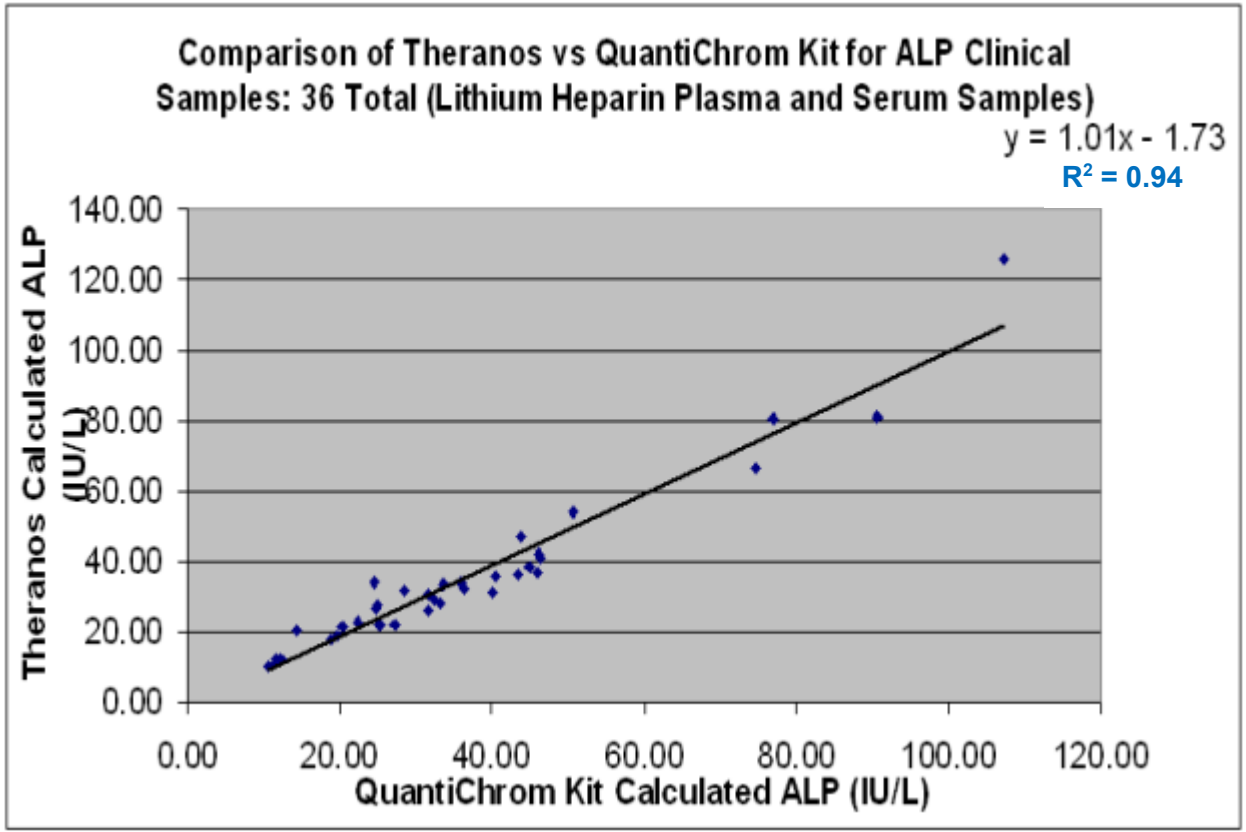
theranos

Aldolase (Serum/Plasma)



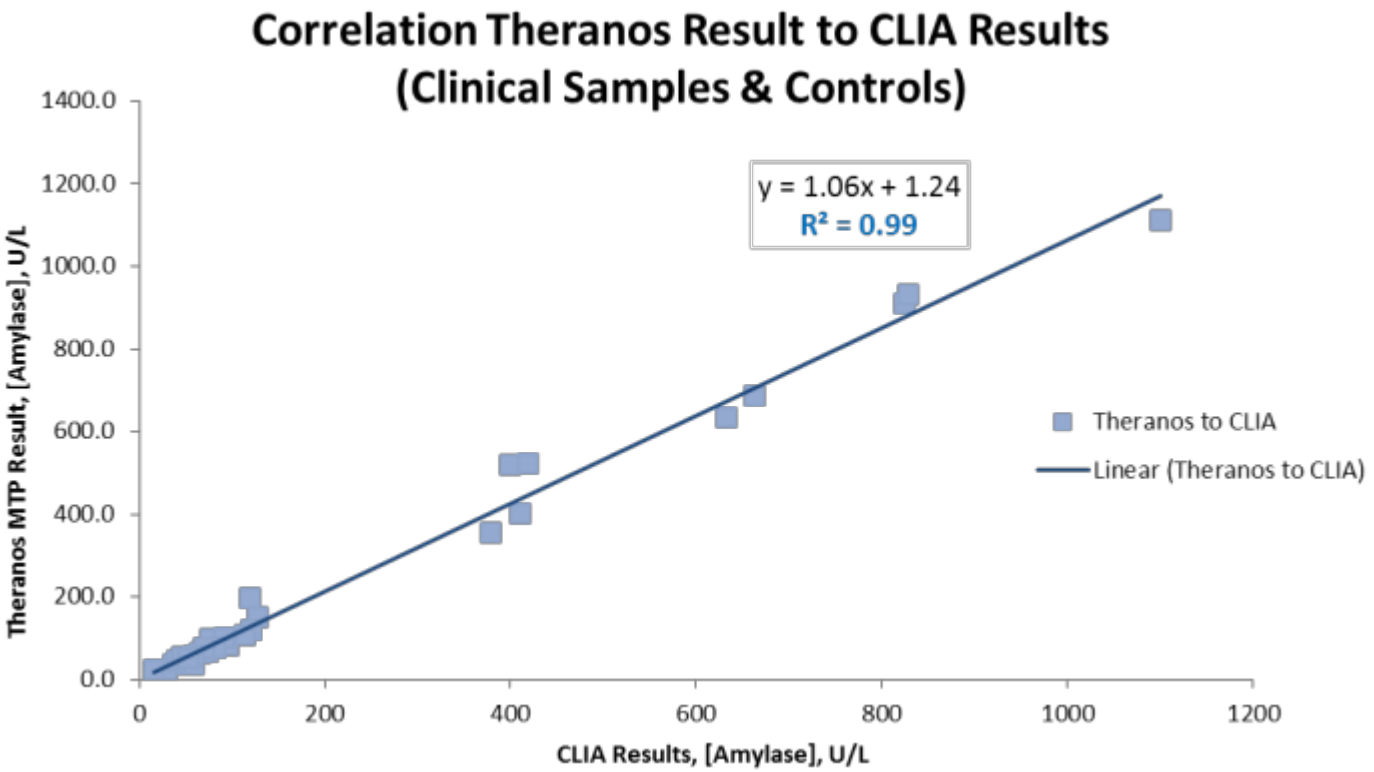
theranos

Alkaline Phosphatase (ALP)



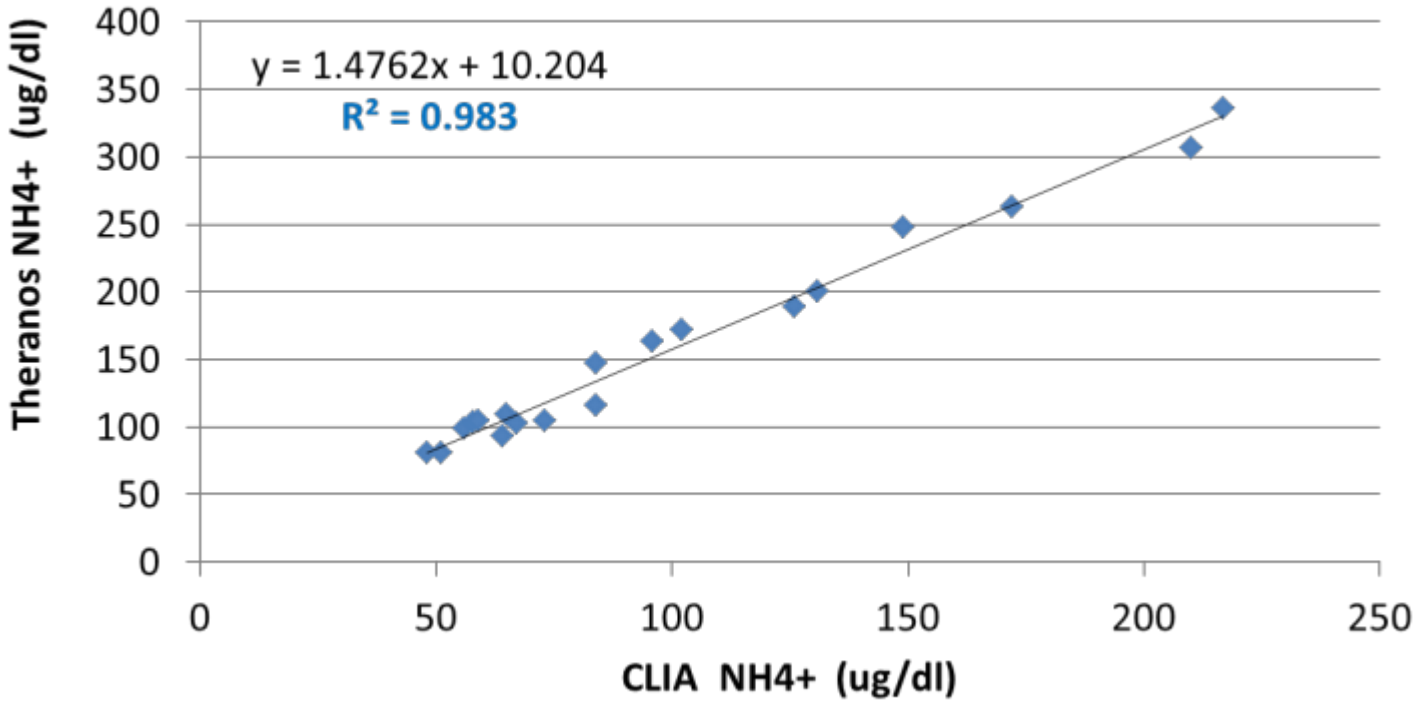
theranos

Alpha Amylase (Plasma)



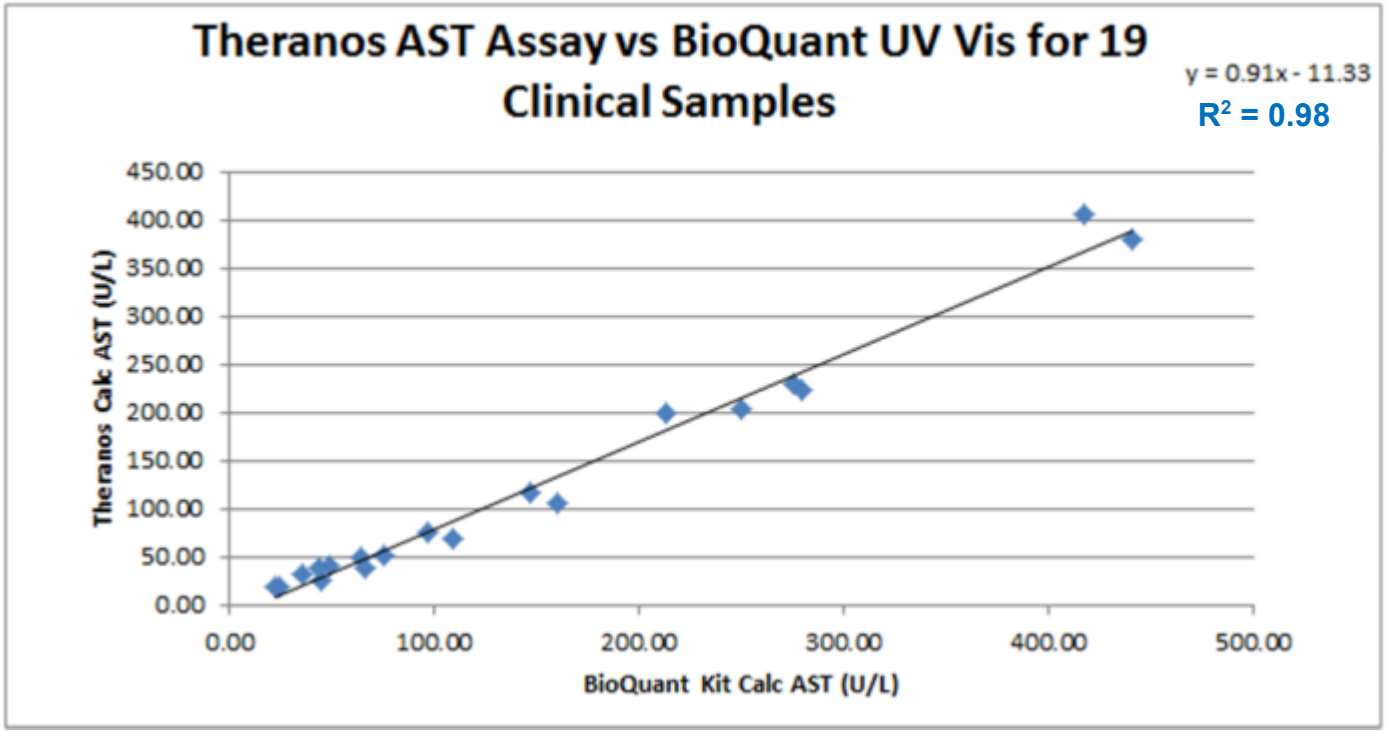
theranos

Ammonia (Plasma)



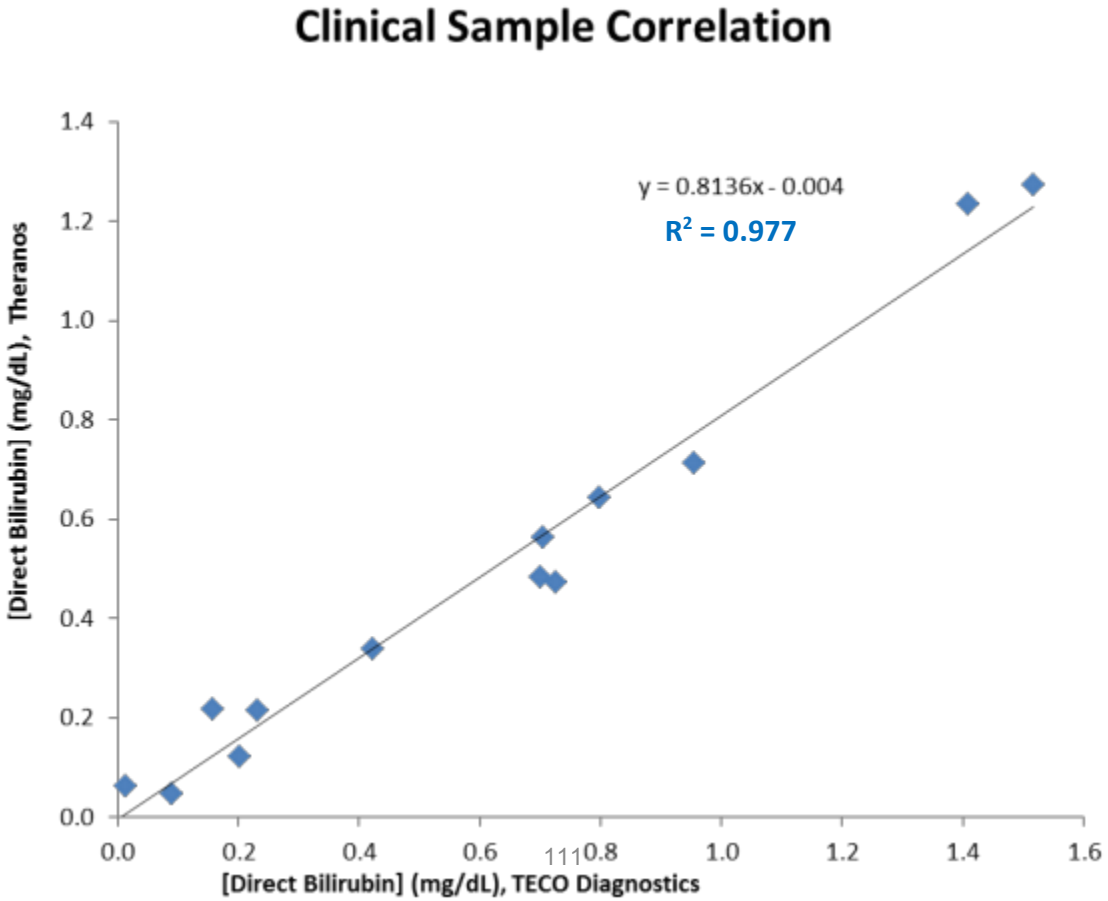
theranos

Aspartate Aminotransferase



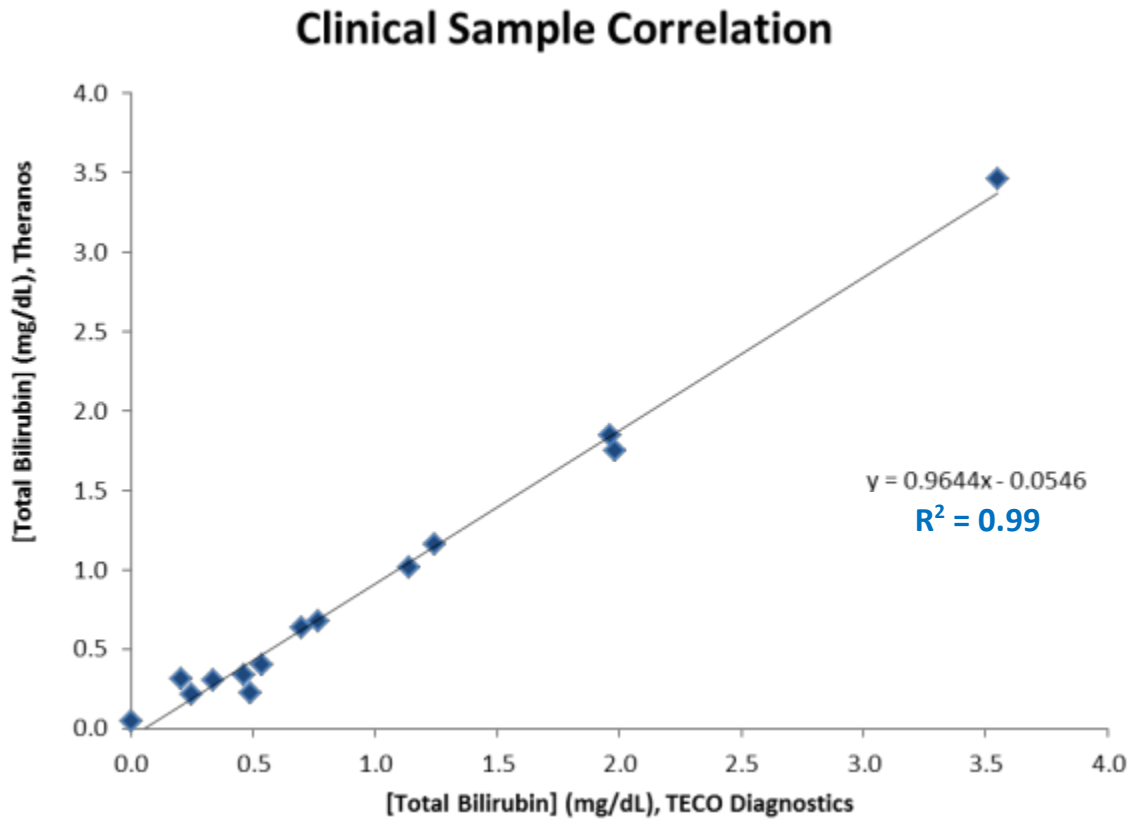
theranos

Direct Bilirubin (Plasma)



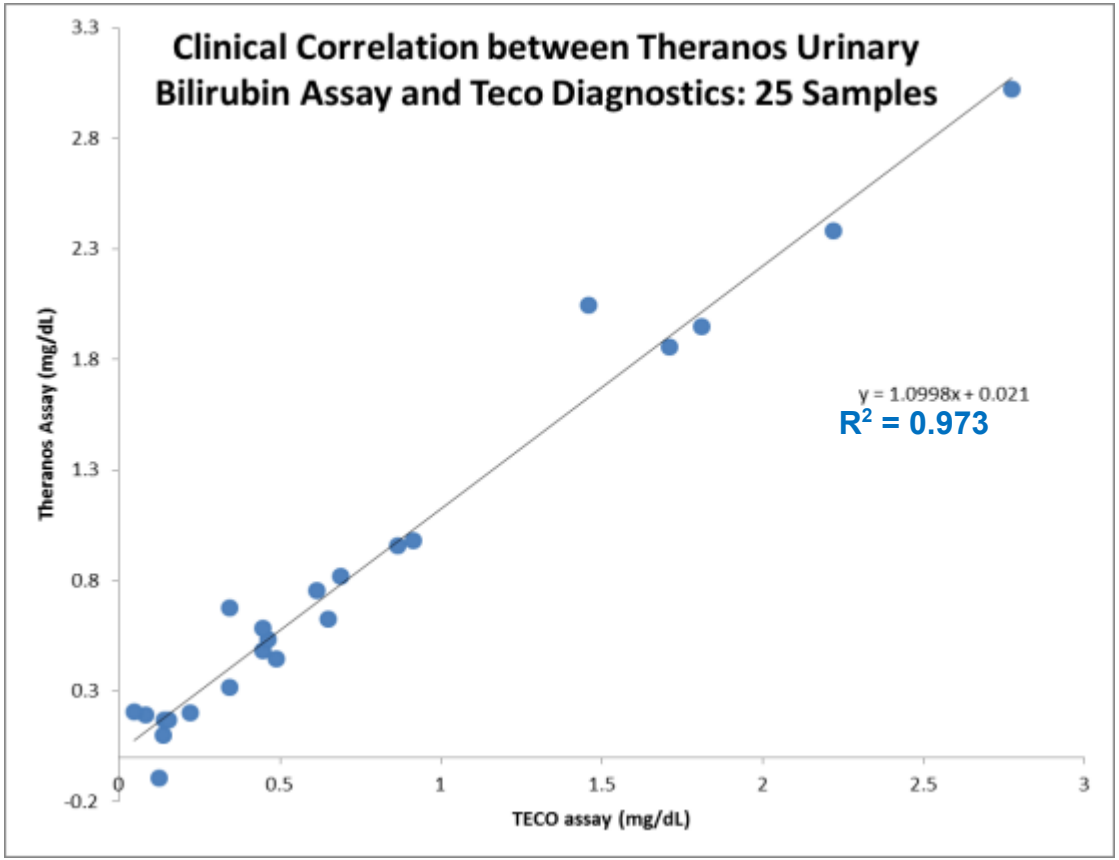
theranos

Total Bilirubin (Plasma)



theranos

Bilirubin (Urine)



theranos

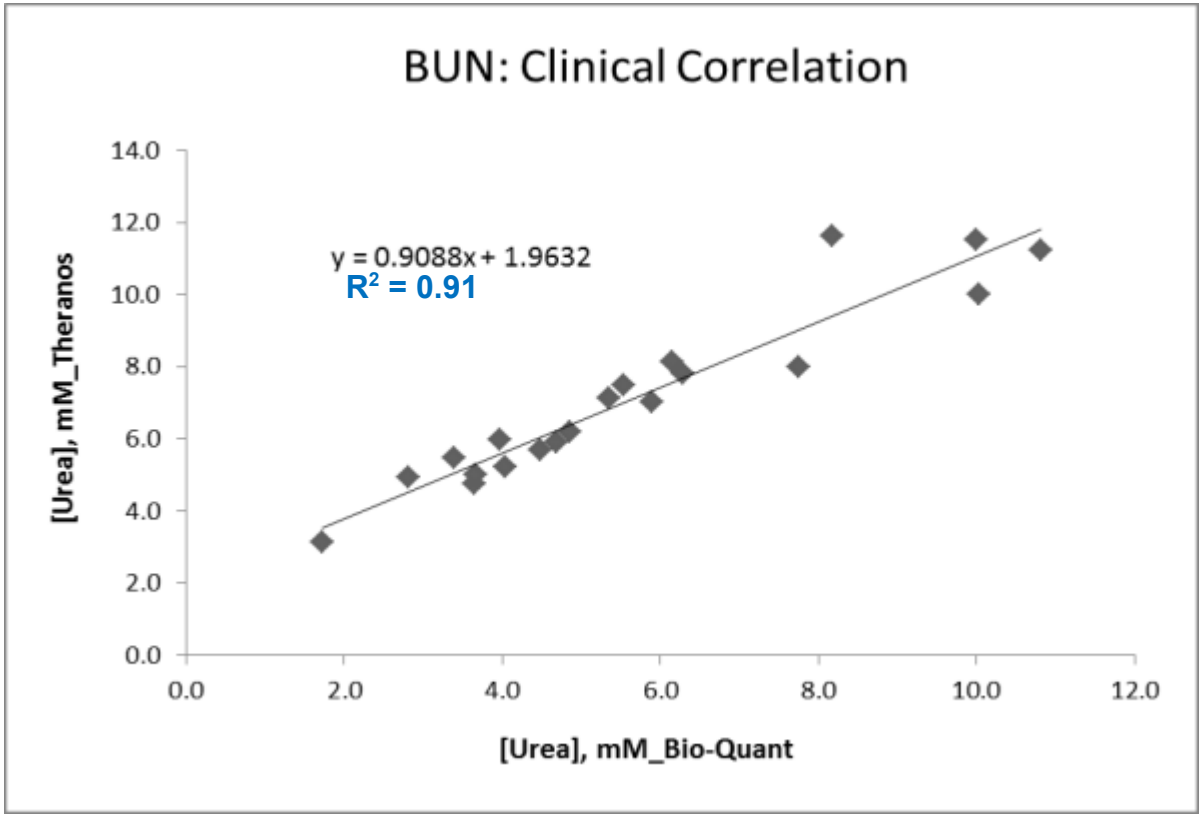
Blood Typing: - ABO & RhD

Blood Type	Test Results		Blood Type	Test Results	
	Reference	Theranos		Reference	Theranos
EDTA	O +	O +	EDTA	AB -	AB -
EDTA	O +	O +	EDTA	A -	A -
EDTA	B +	B +	EDTA	O -	O -
EDTA	O +	O +	Heparin/FS	AB +	AB +
EDTA	A +	A +	Heparin/FS	A -	A -
EDTA	A +	A +	Heparin/FS	B +	B +
EDTA	O -	O -	Heparin/FS	B +	B +
EDTA	AB +	AB +	Heparin/FS	O -	O -
EDTA	O +	O +	Heparin/FS	A +	A +
EDTA	A +	A +	Heparin/FS	AB -	AB -
EDTA	A +	A +	Heparin/FS	O +	O +
EDTA	O +	O +	Heparin/FS	B +	B +

Ref: Theranos Folder: J:\Experiment Log\E0700 - E0799\E0705\ABO-Rh Typing\ABO minitips images

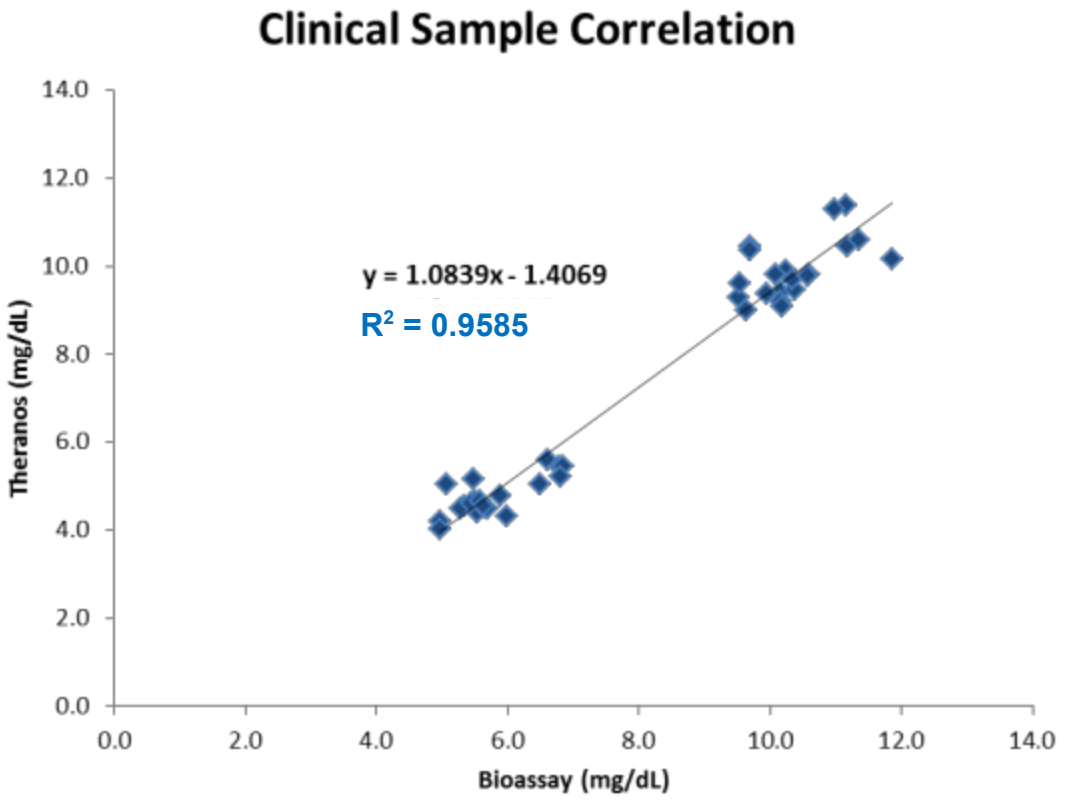
theranos

Blood Urea Nitrogen (BUN)



theranos

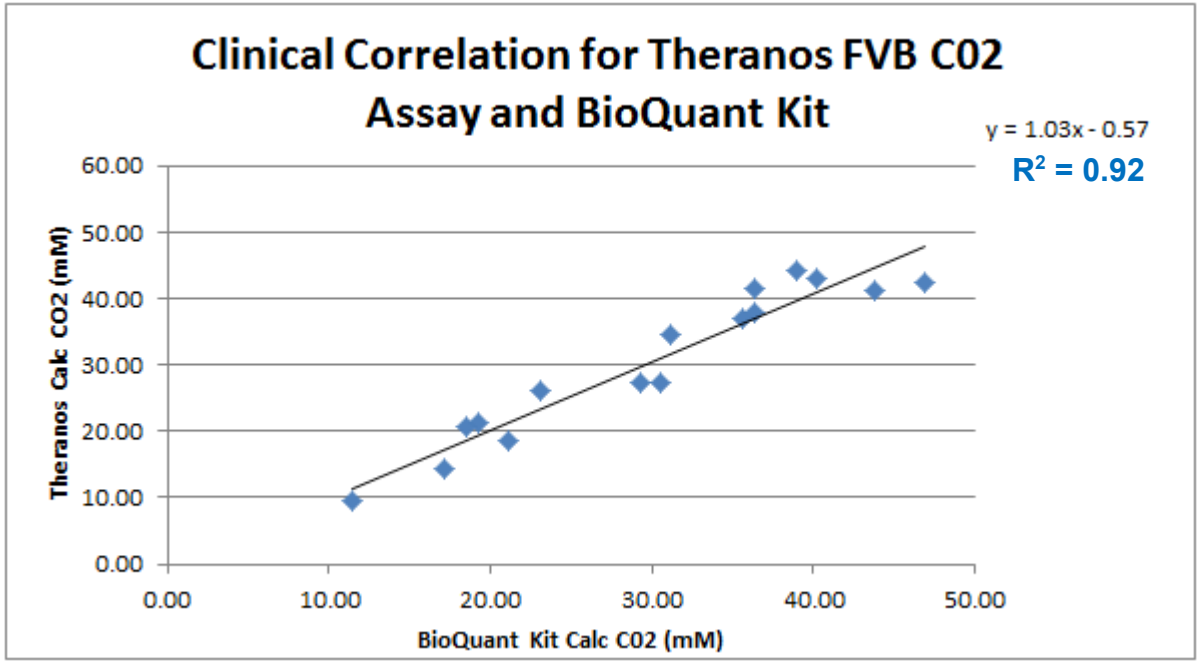
Calcium



theranos

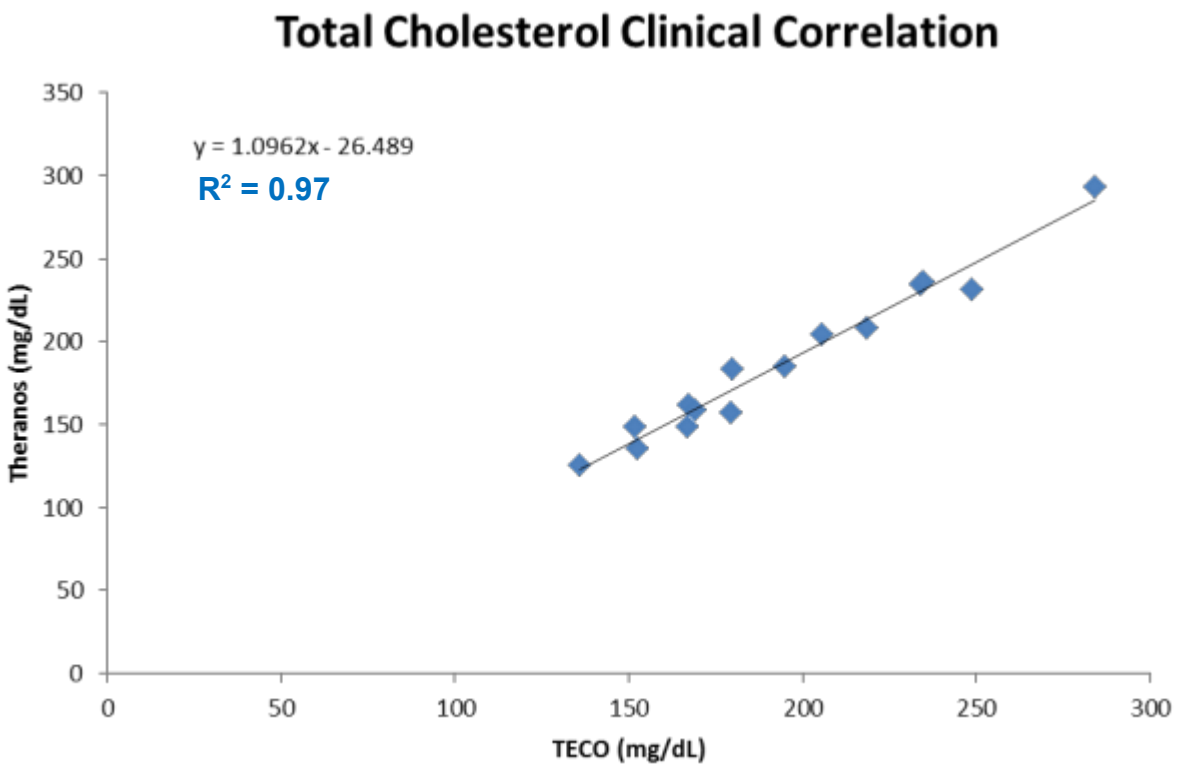
Carbon Dioxide

N = 16 samples



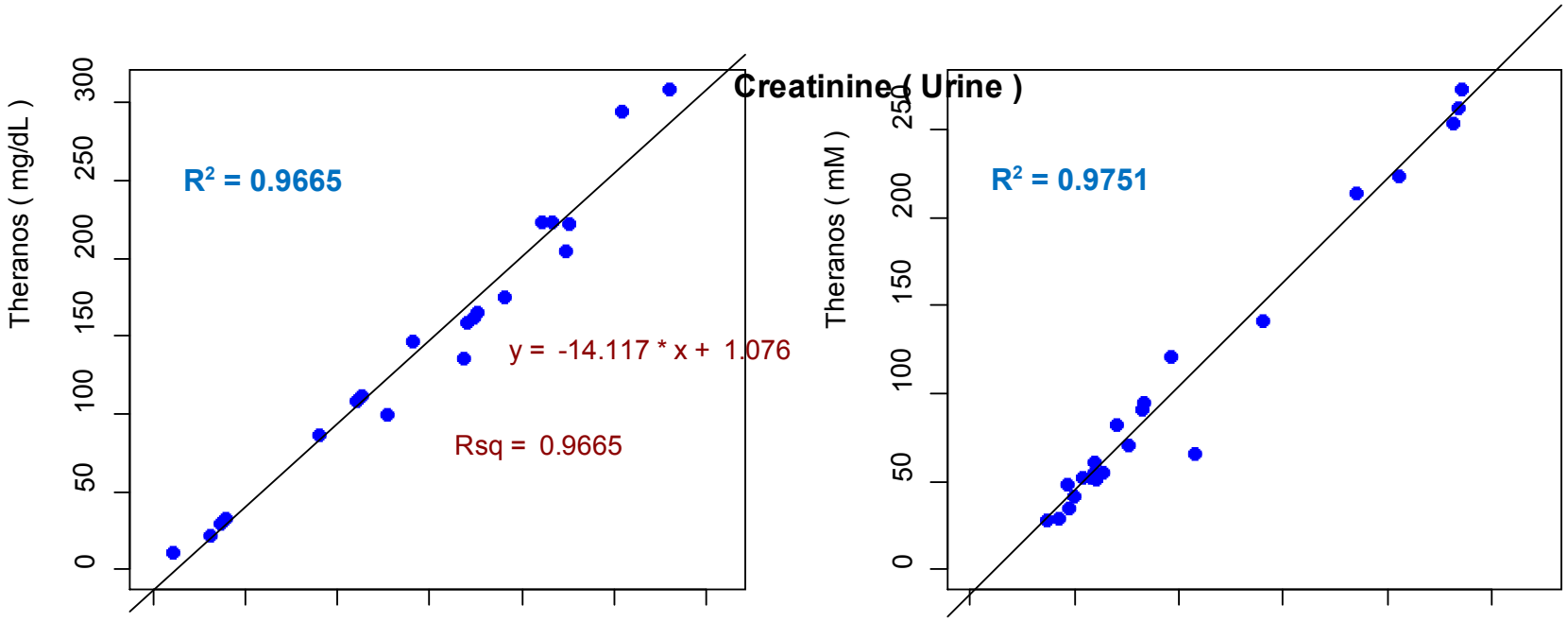
theranos

Total Cholesterol



theranos

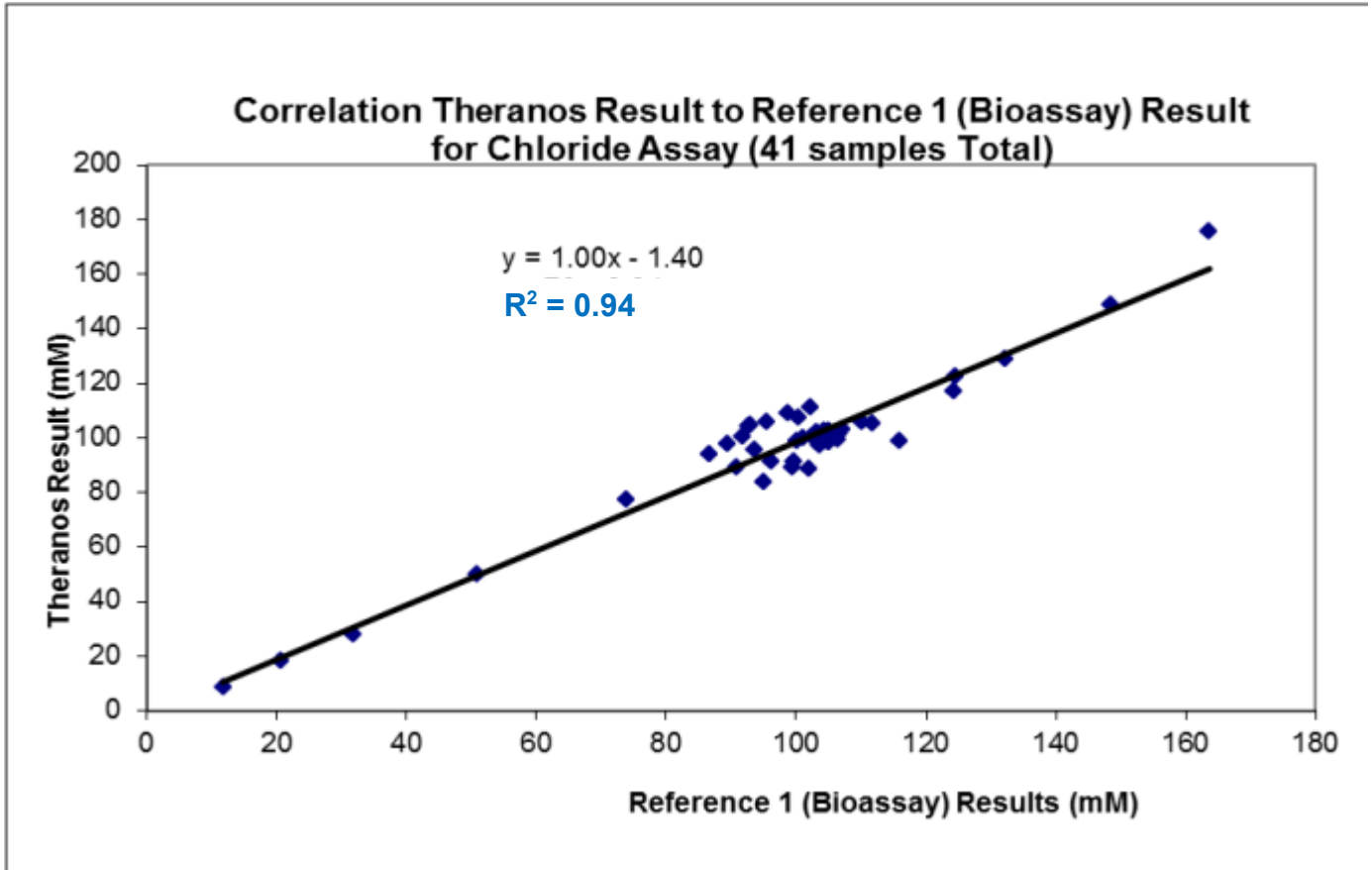
Urine Based Assays – Creatinine, Chloride



theranos

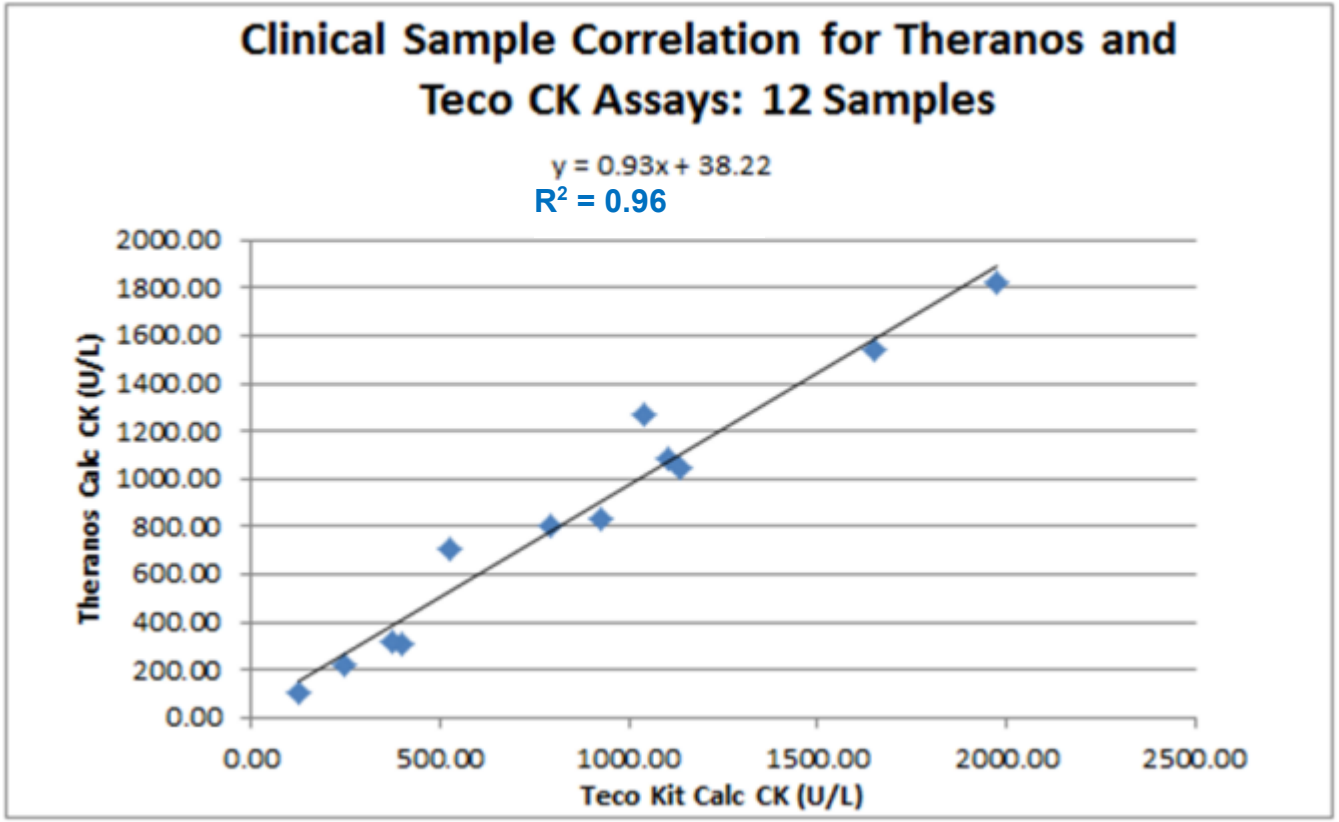
Chloride

N = 41 clinical and spiked samples



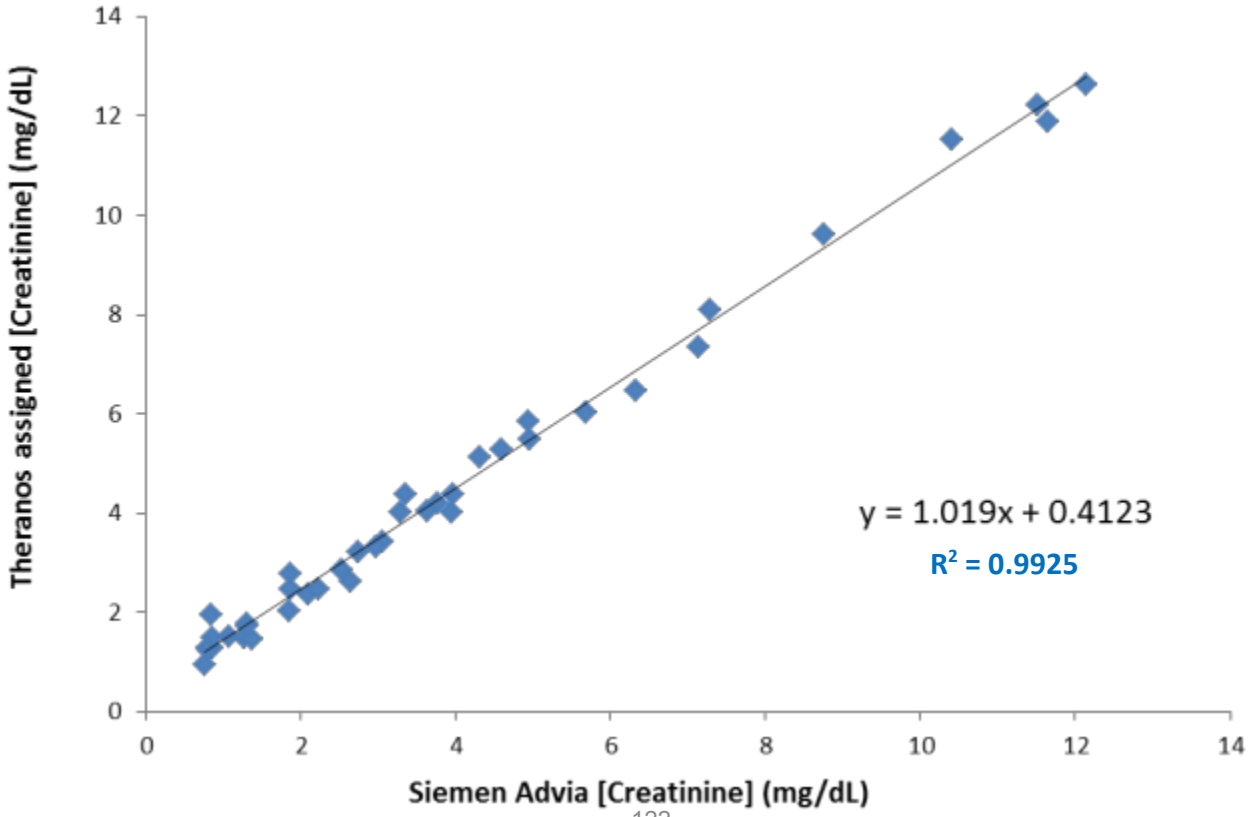
theranos

Creatine Kinase



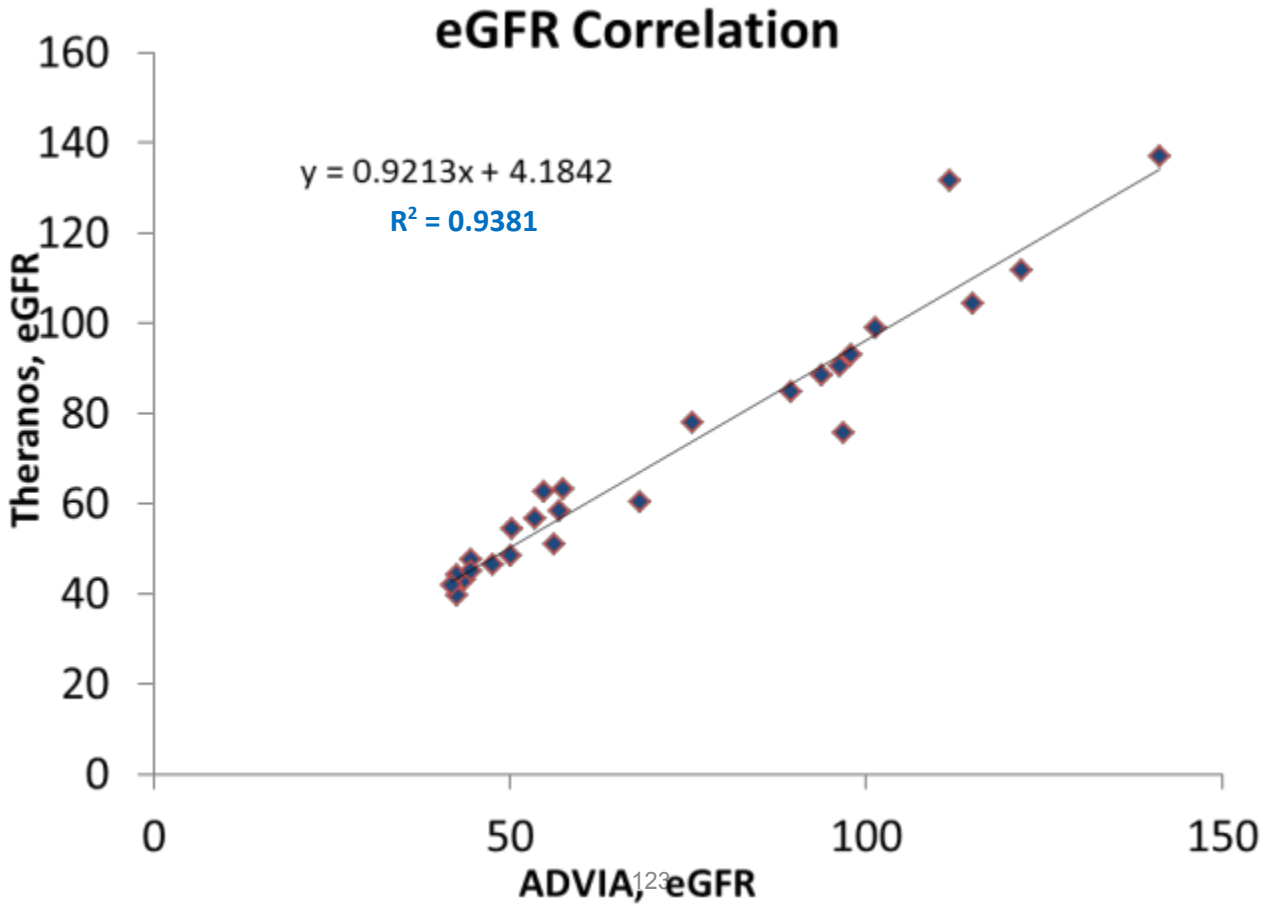
theranos

Creatinine (Plasma)



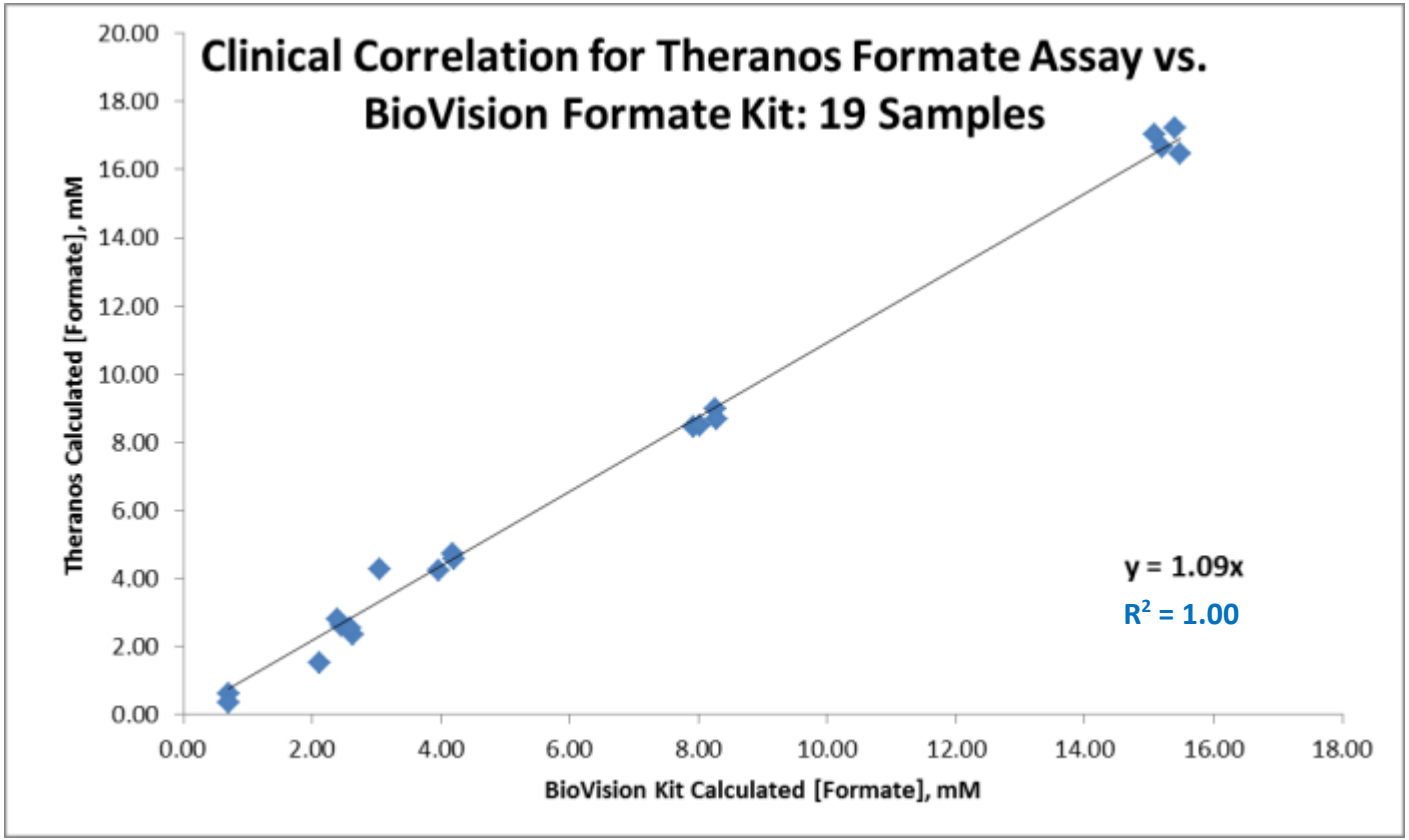
theranos

eGFR



theranos

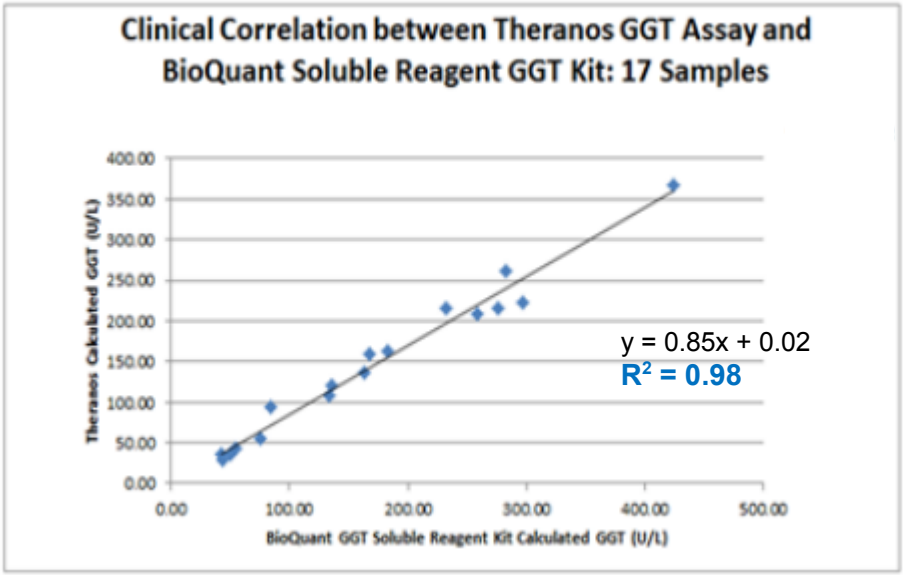
Formate (Plasma)



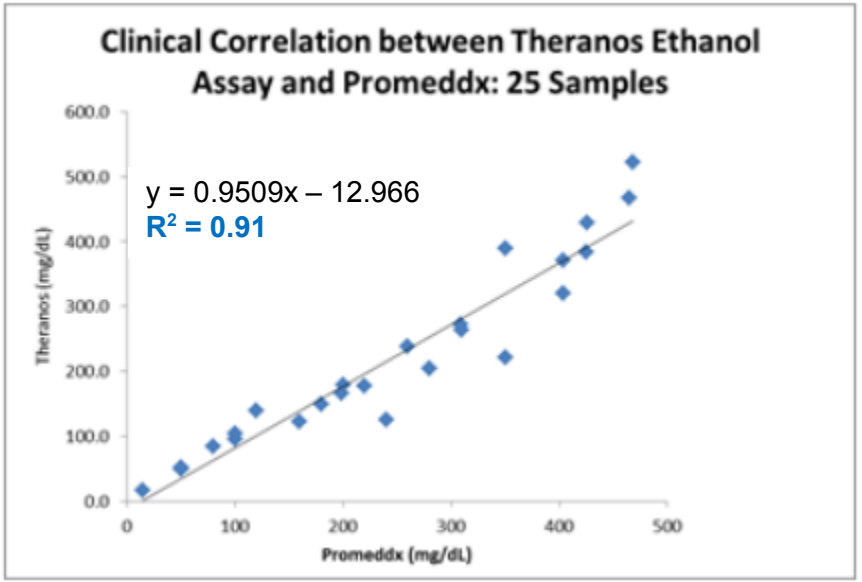
theranos

General Chemistries

GGT

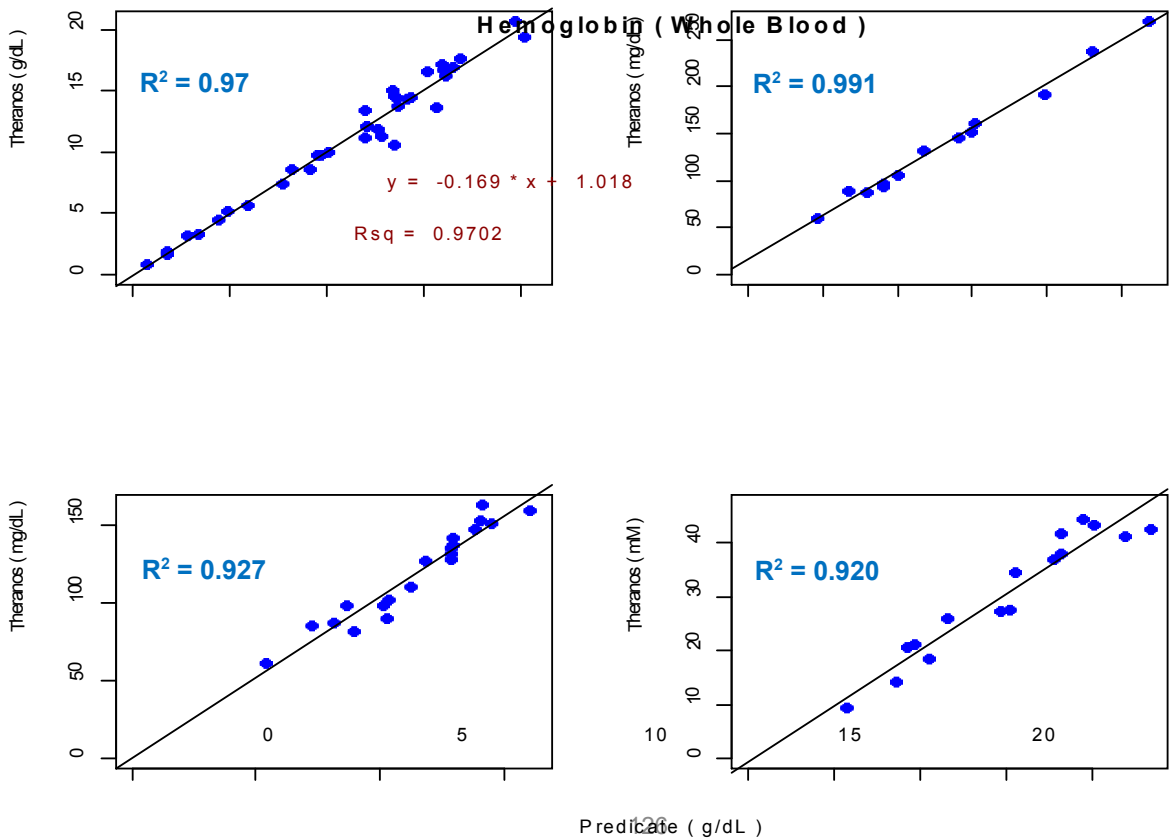


Ethanol

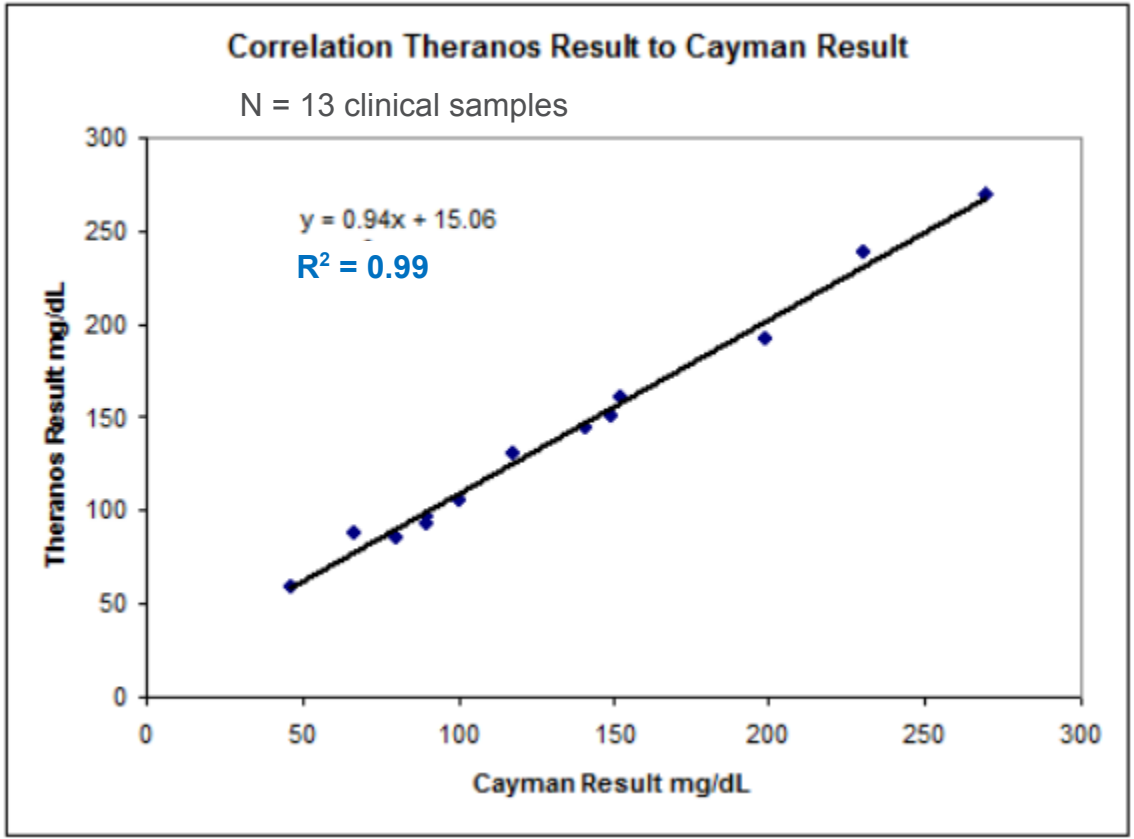


theranos

General Chemistries



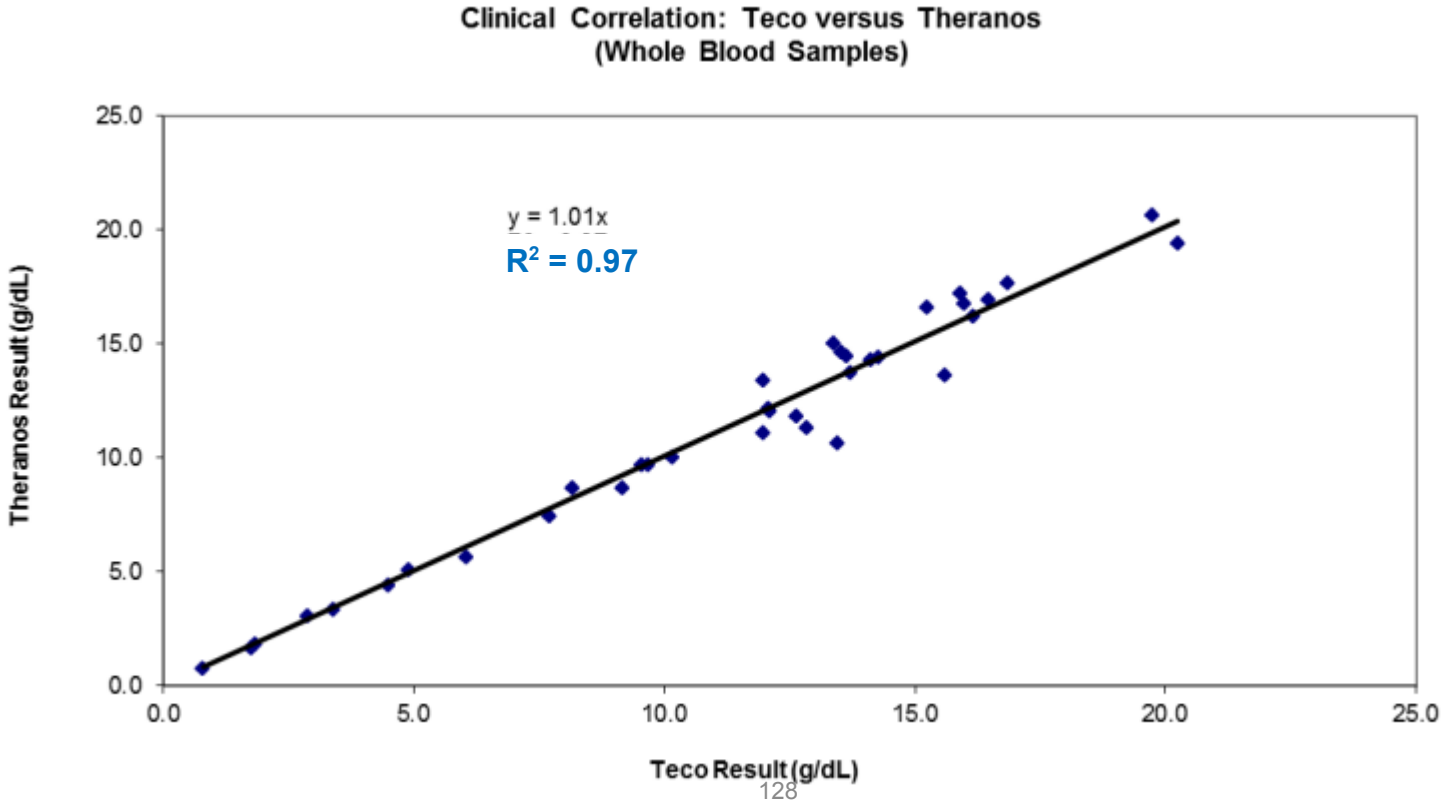
Glucose



theranos

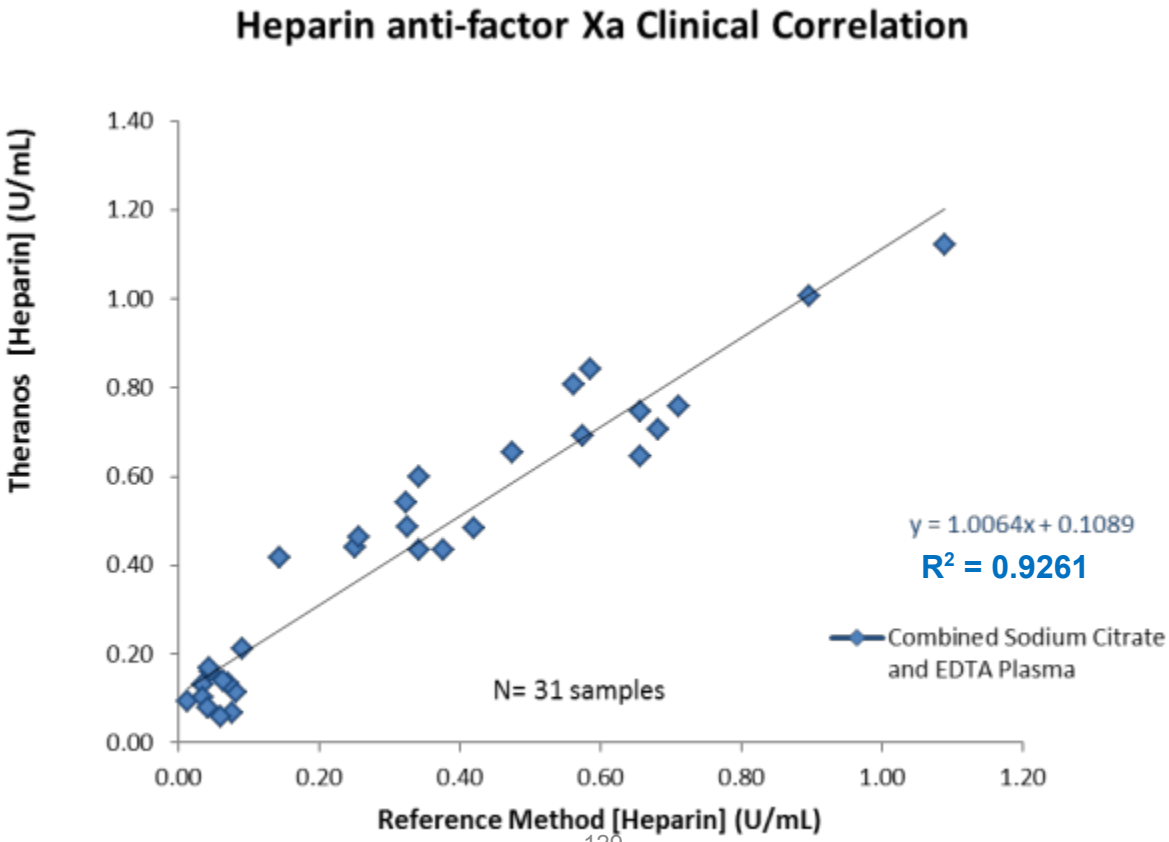
Hemoglobin

N = 36 clinical samples



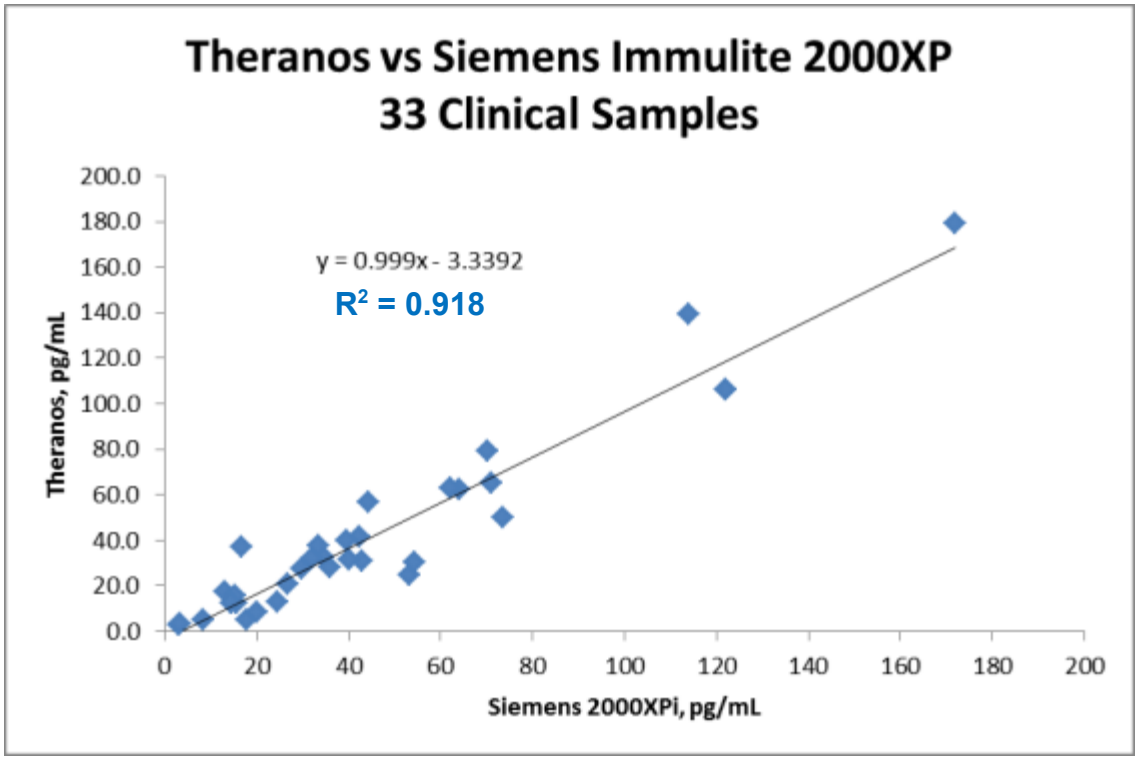
theranos

Heparin anti-factor Xa



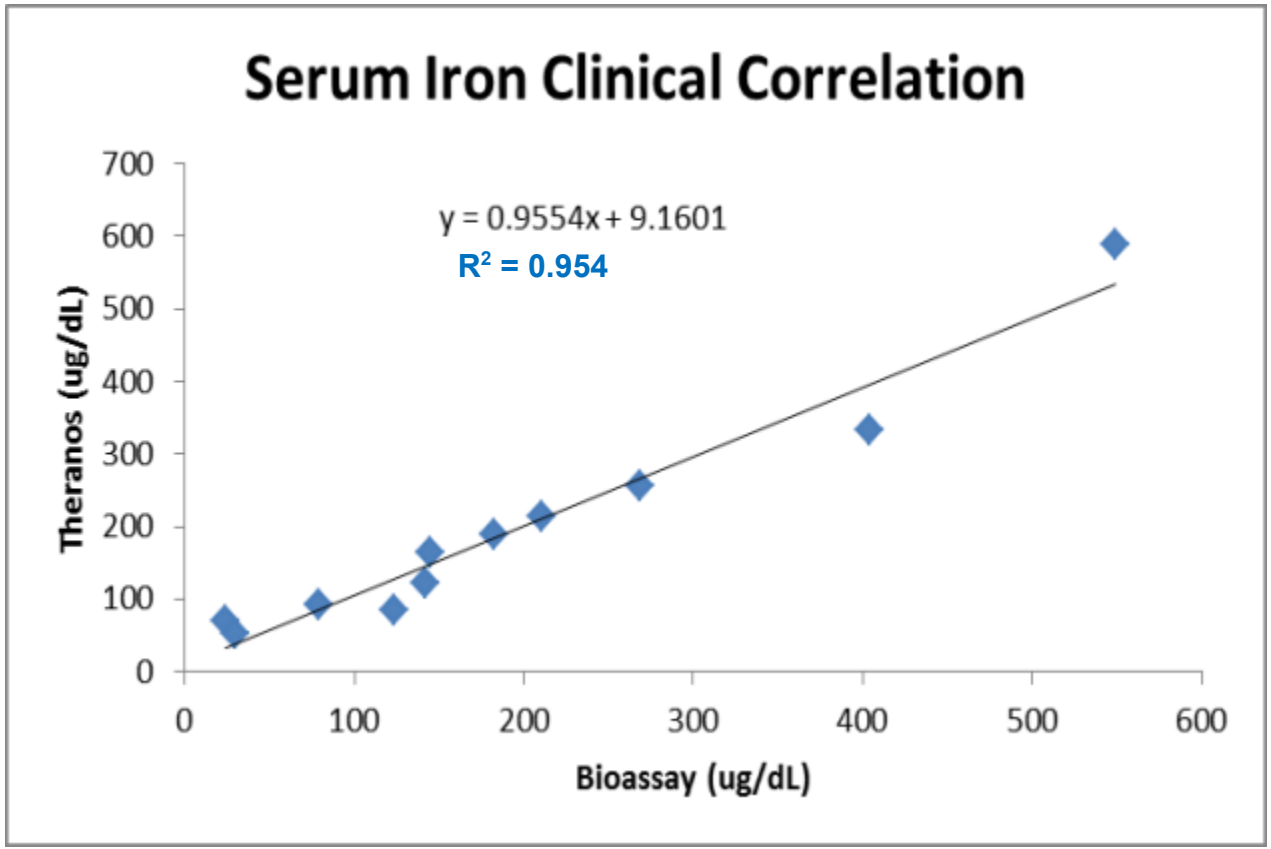
theranos

Intact Parathyroid Hormone (iPTH)



theranos

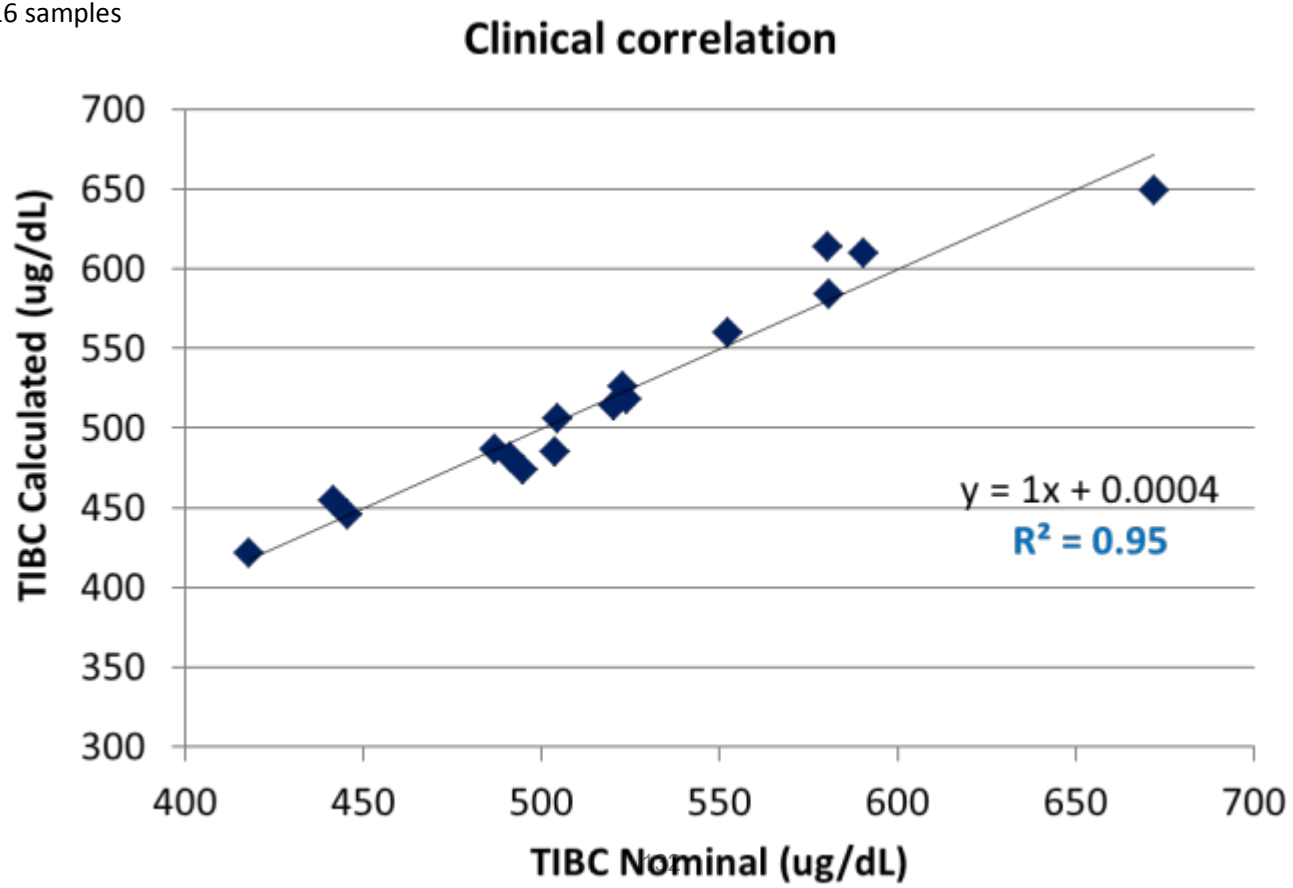
Iron (Serum)



theranos

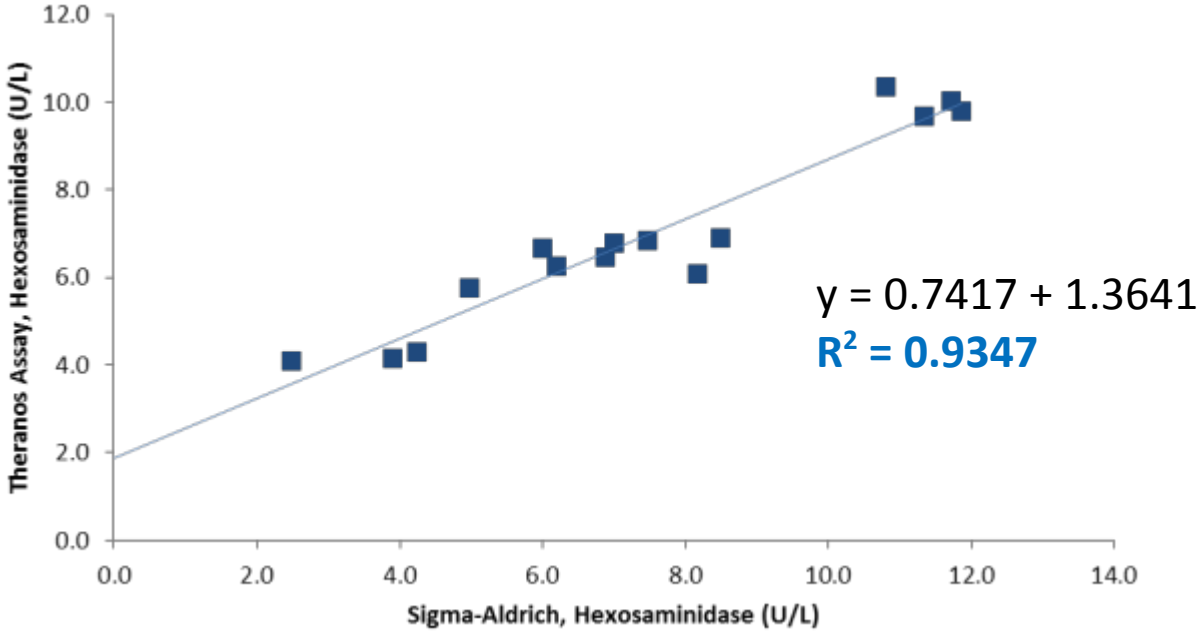
Total Iron Binding Capacity (TIBC)

N = 16 samples



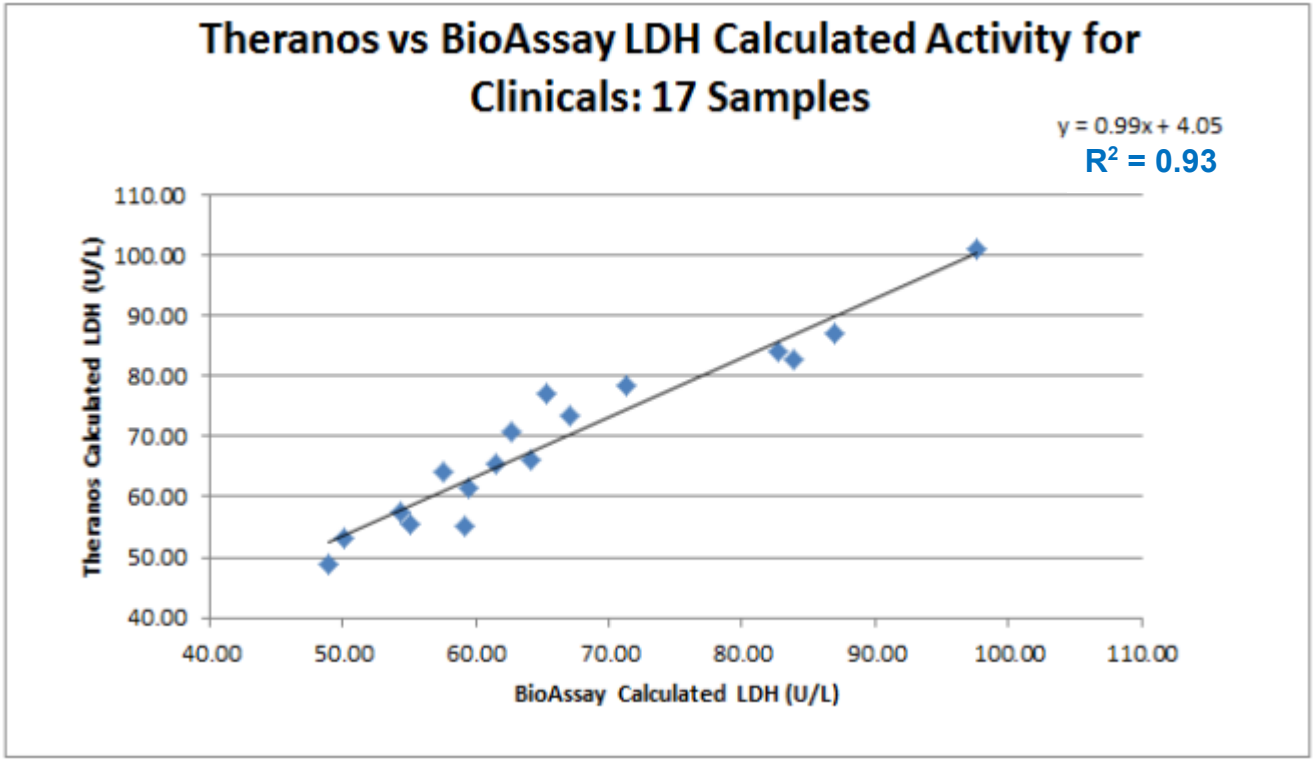
theranos

Hexosaminidase Total & A in Plasma



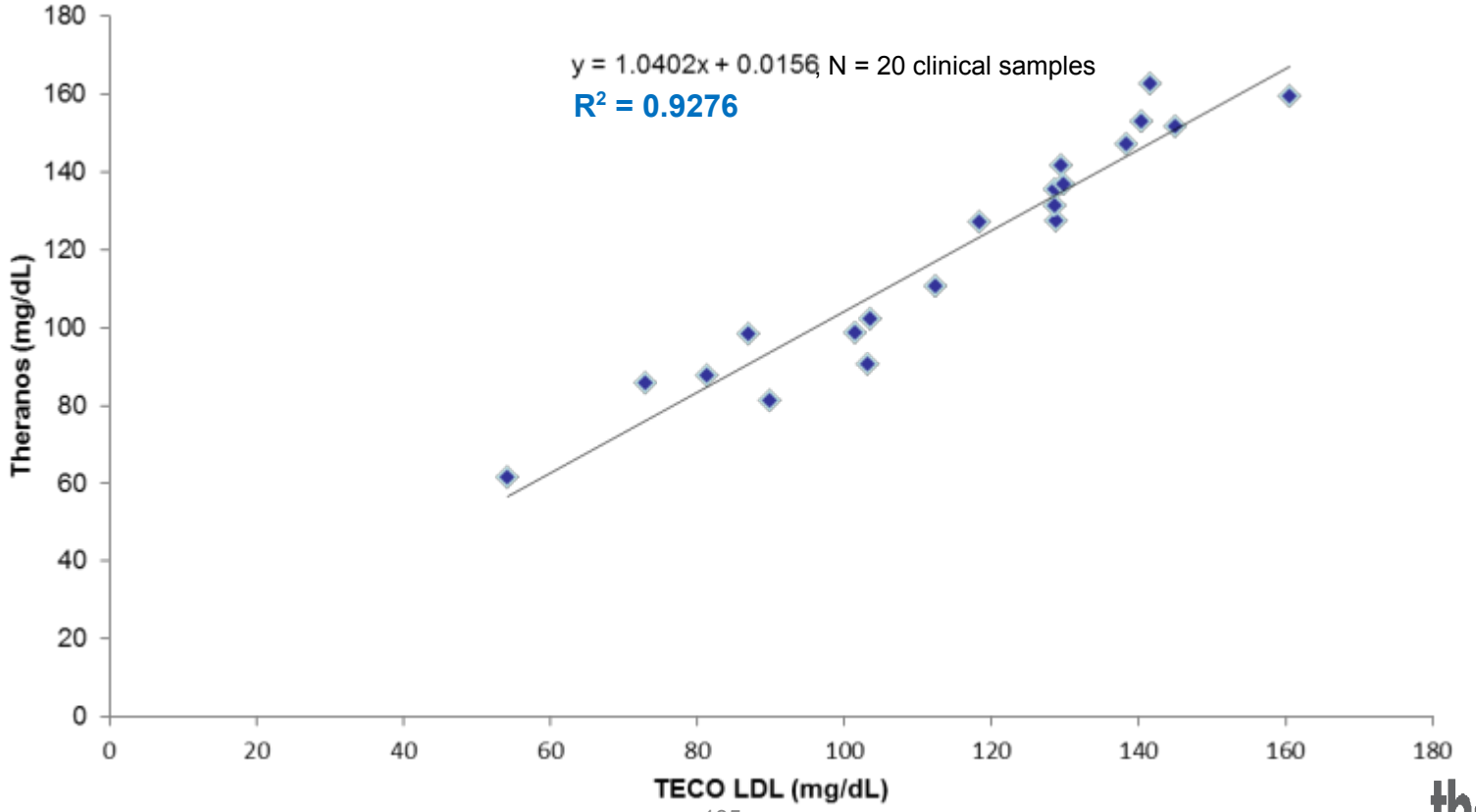
theranos

Lactate Dehydrogenase (LDH)



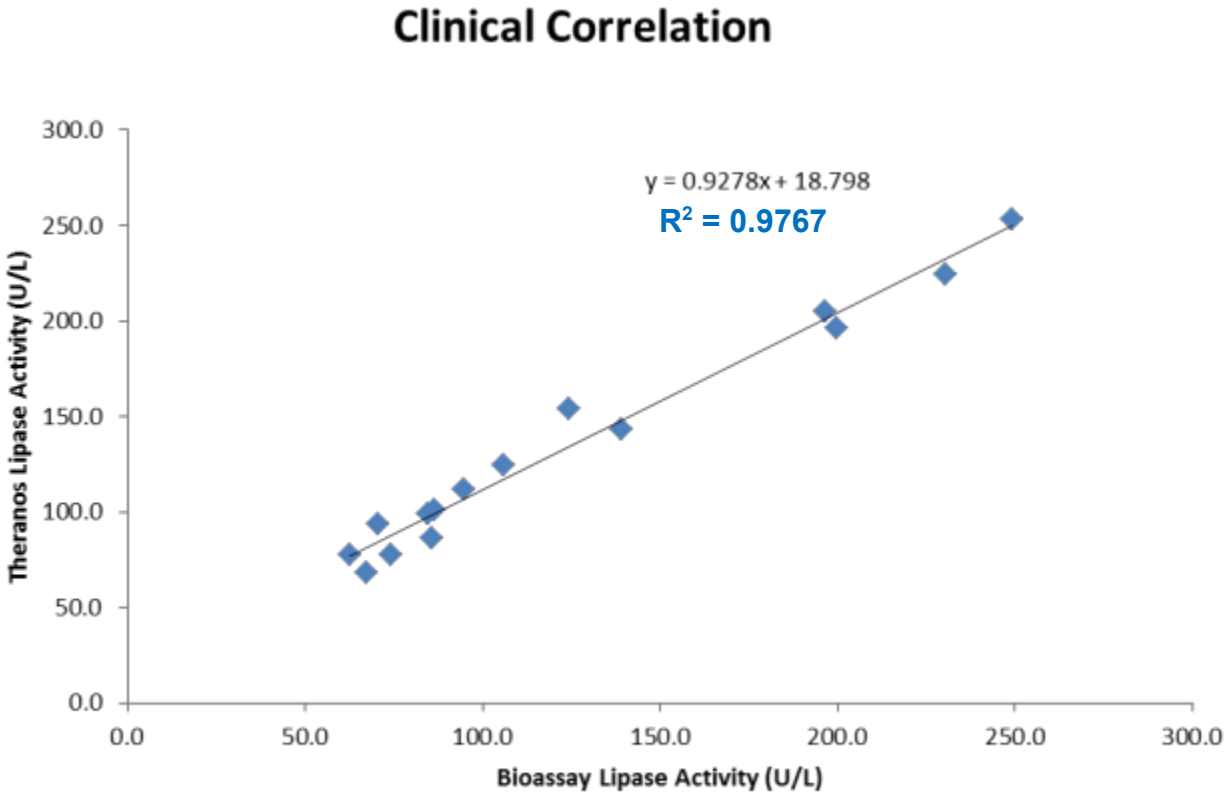
theranos

Direct LDL-Cholesterol

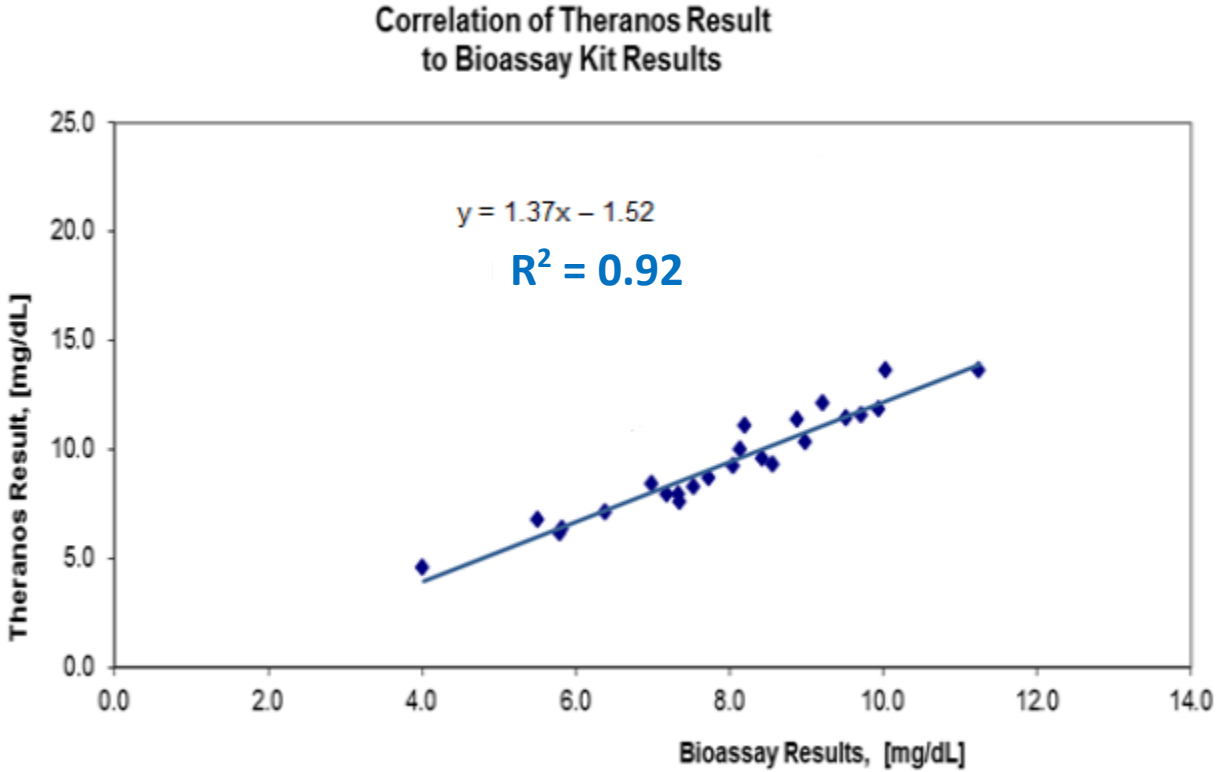


theranos

Lipase

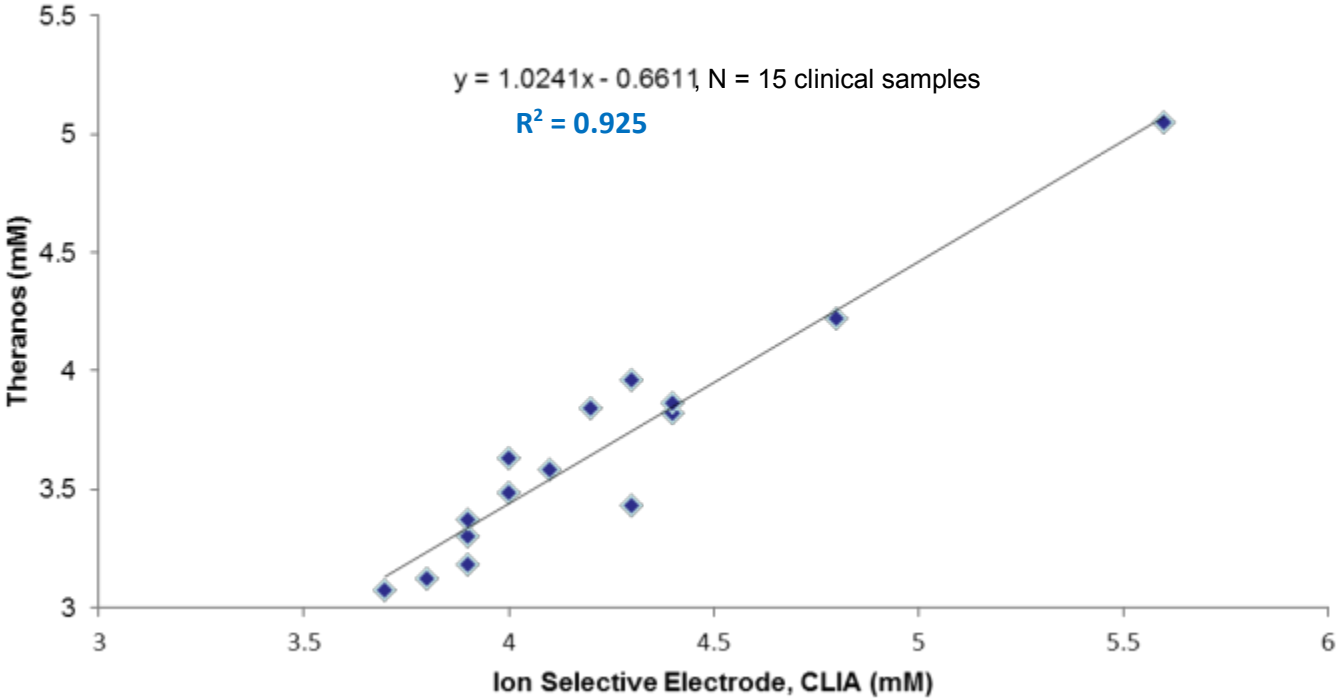

Clinical Correlation
y = 0.9278x + 18.798
R2 = 0.9767
Theranos Lipase Activity (U/L)
Bioassay Lipase Activity (U/L)
0.0
50.0
100.0
150.0
200.0
250.0
300.0

Phosphate



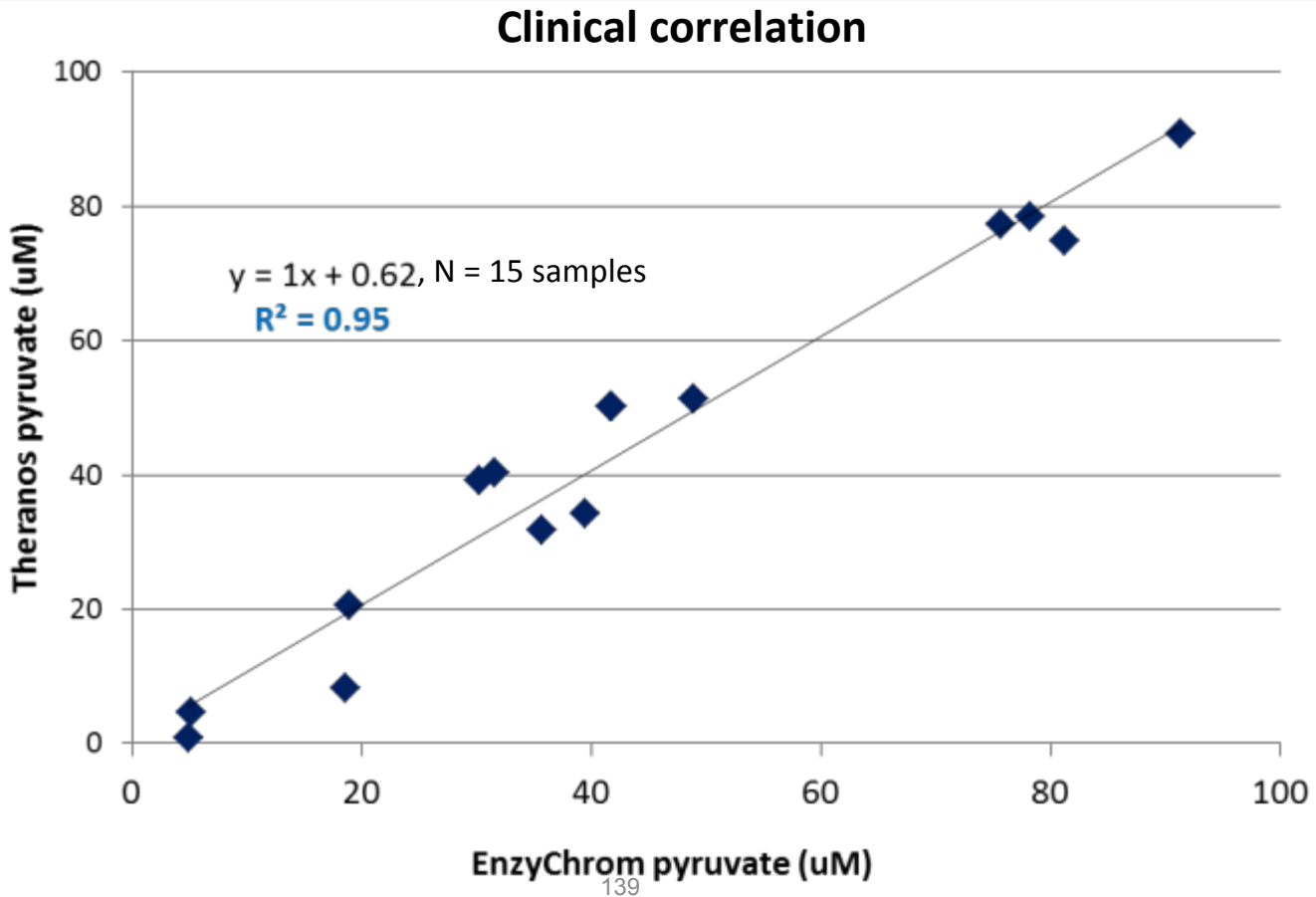
theranos

Potassium



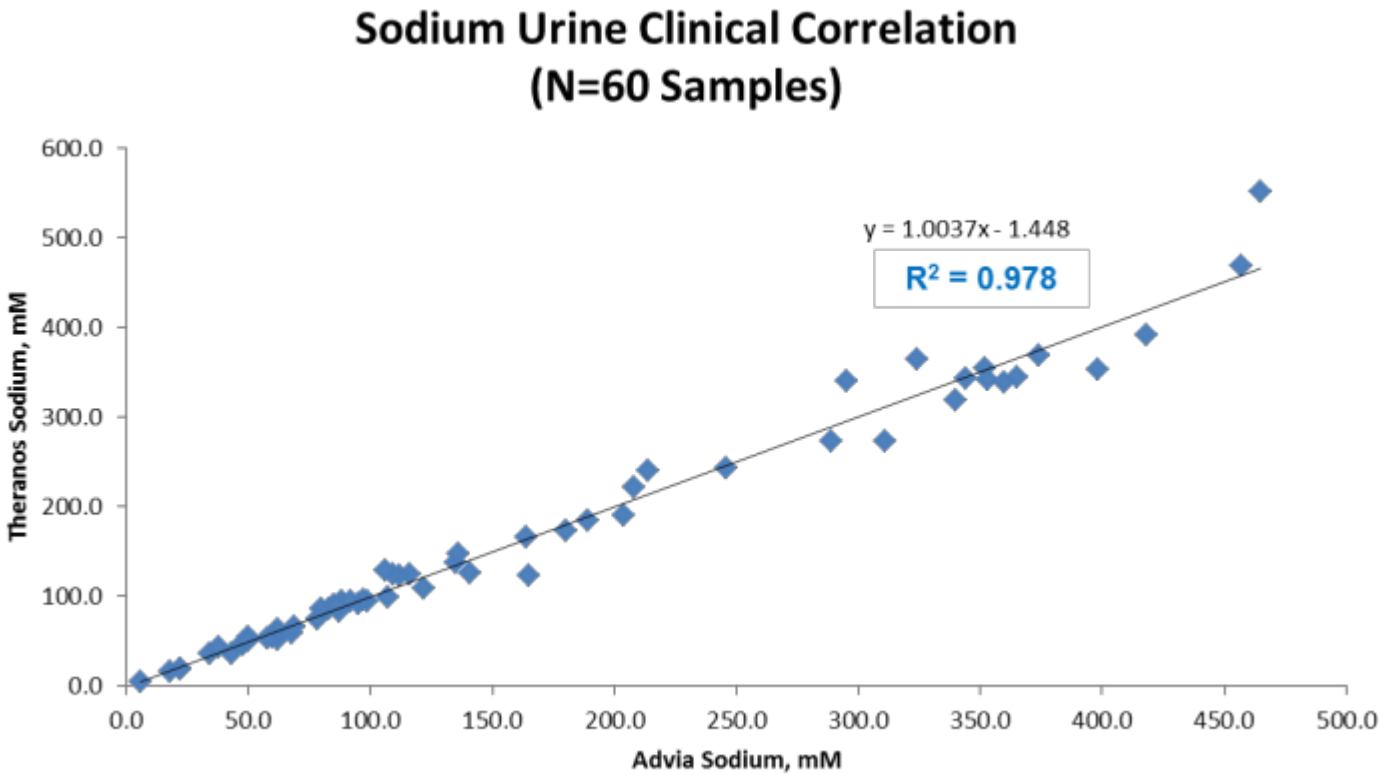
theranos

Pyruvate (Plasma)



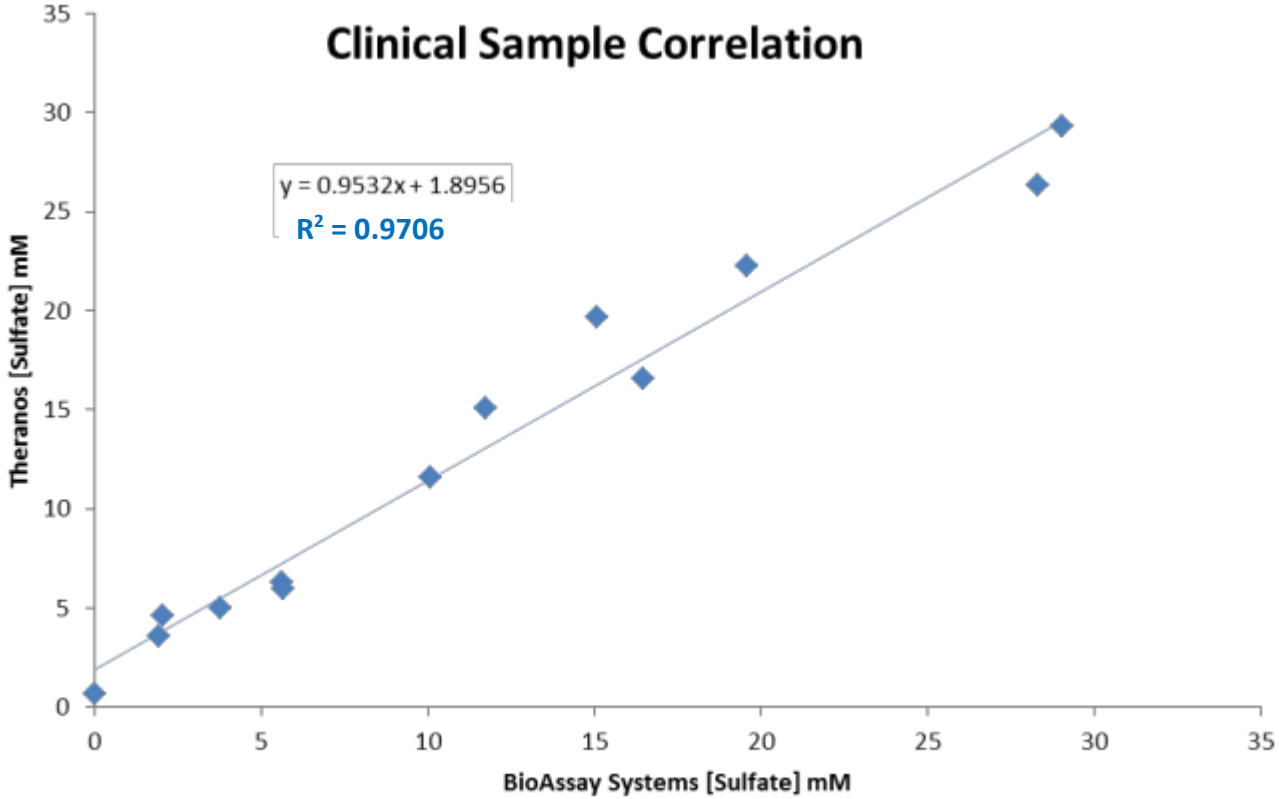
theranos

Sodium (Urine)



theranos

Sulfate (Urine)



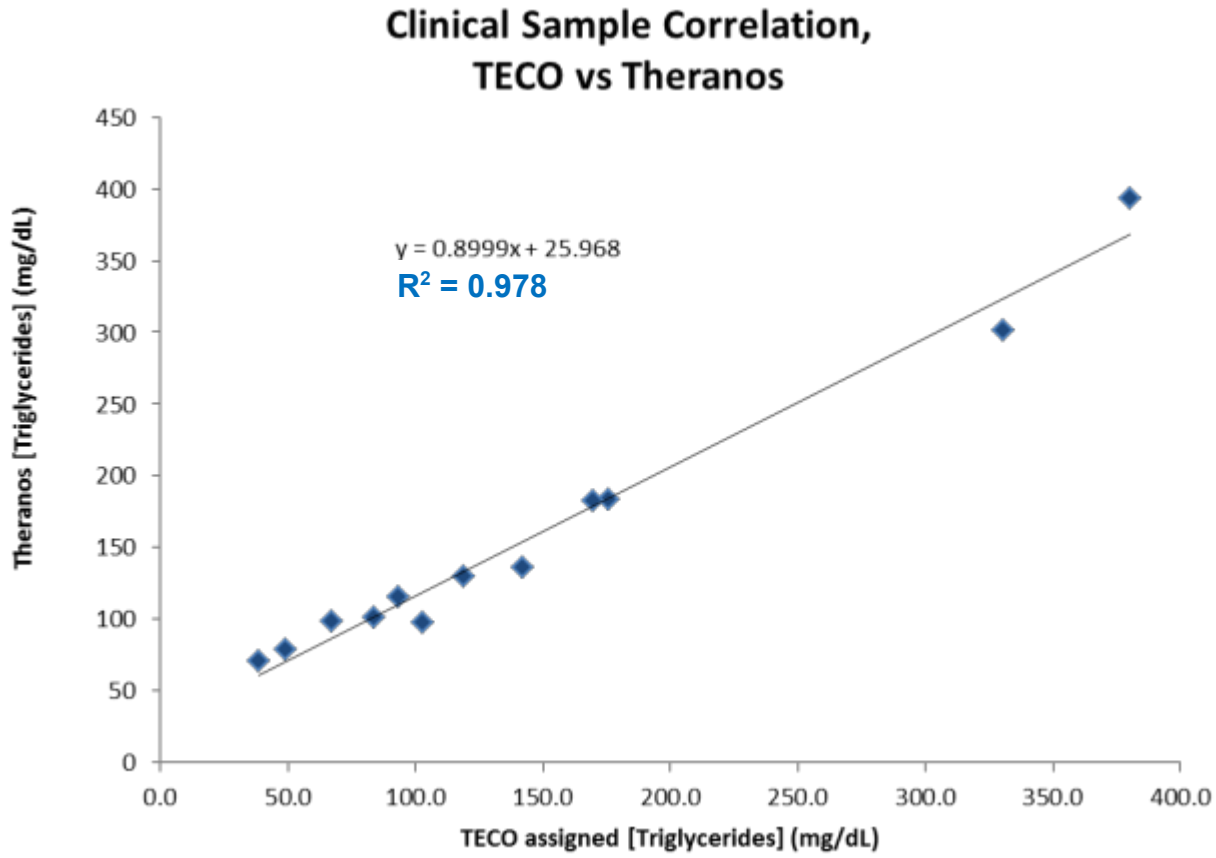
theranos

Streptozyme Assay Summary

	Theranos		
	Negative	Positive	
Reference Negative	17	1*	94% Specificity
Reference Positive	0	20	100% Sensitivity

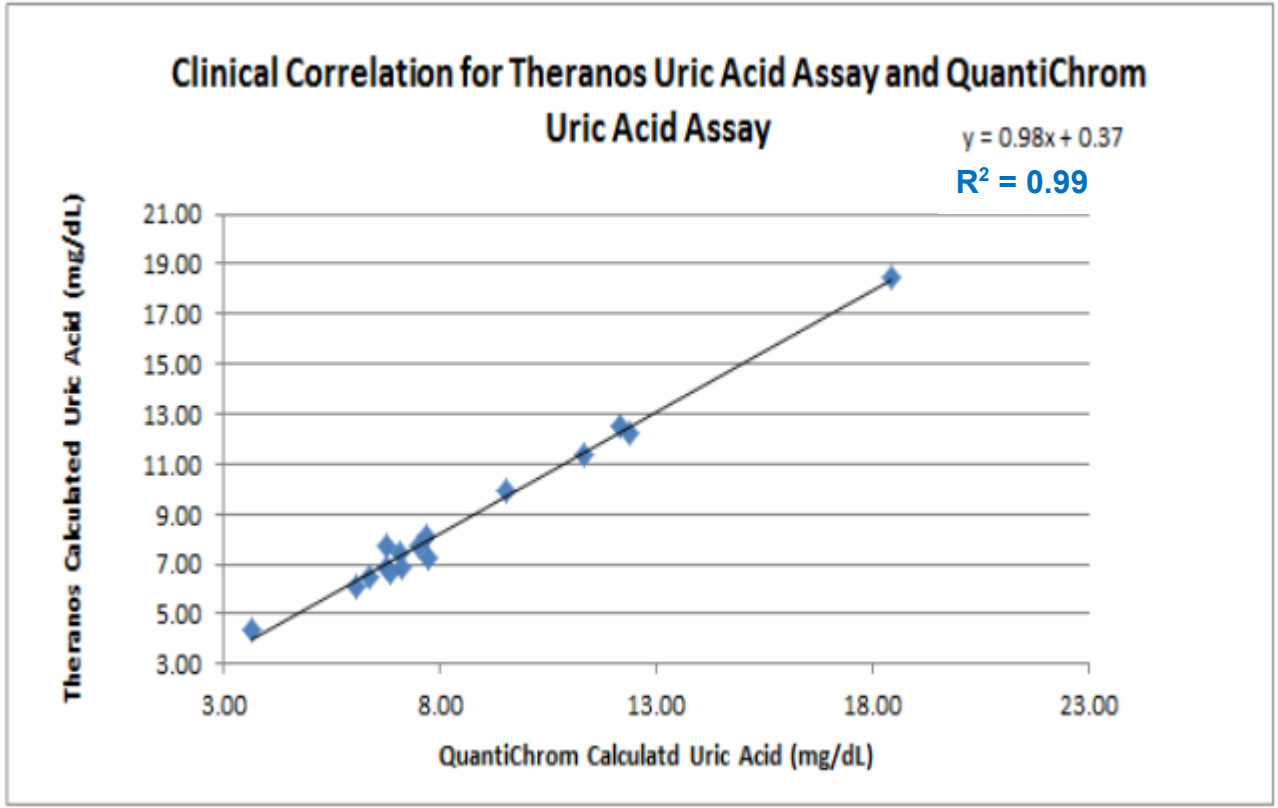
theranos

Triglycerides (Plasma)



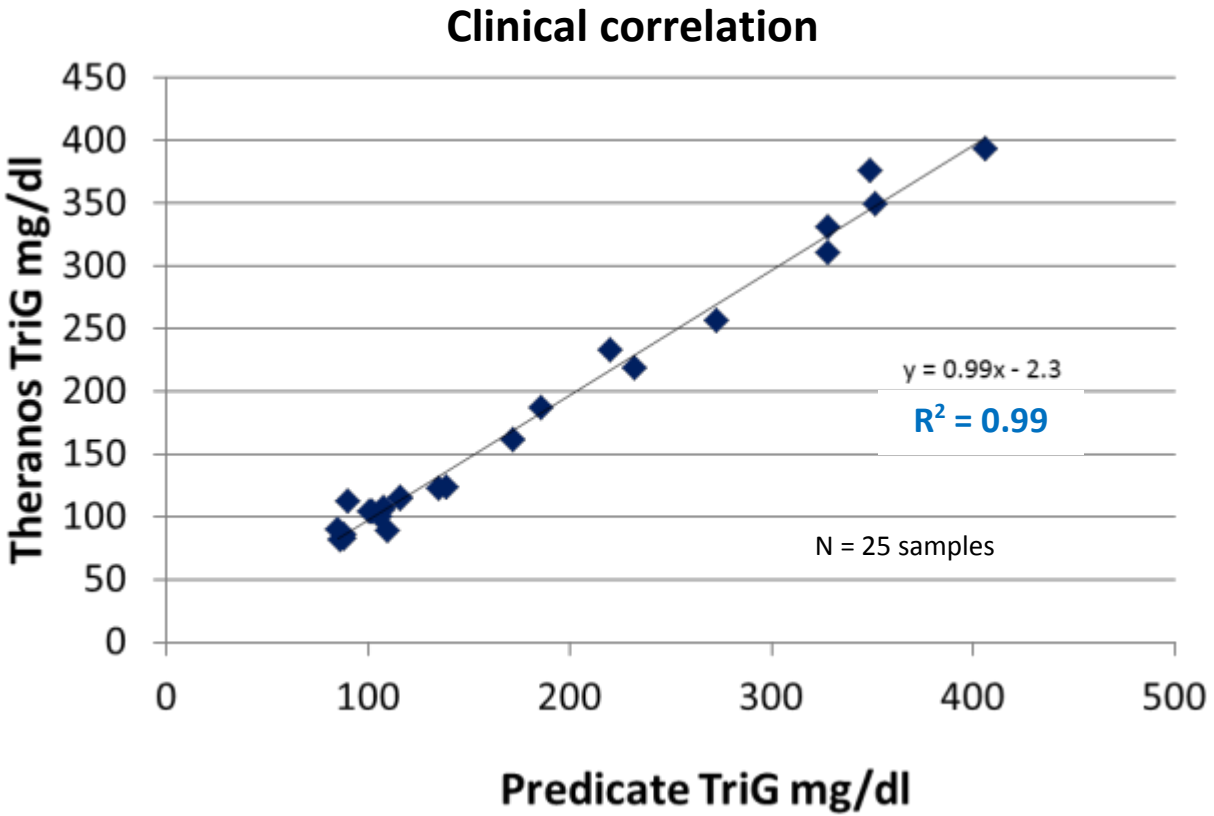
theranos

Uric Acid



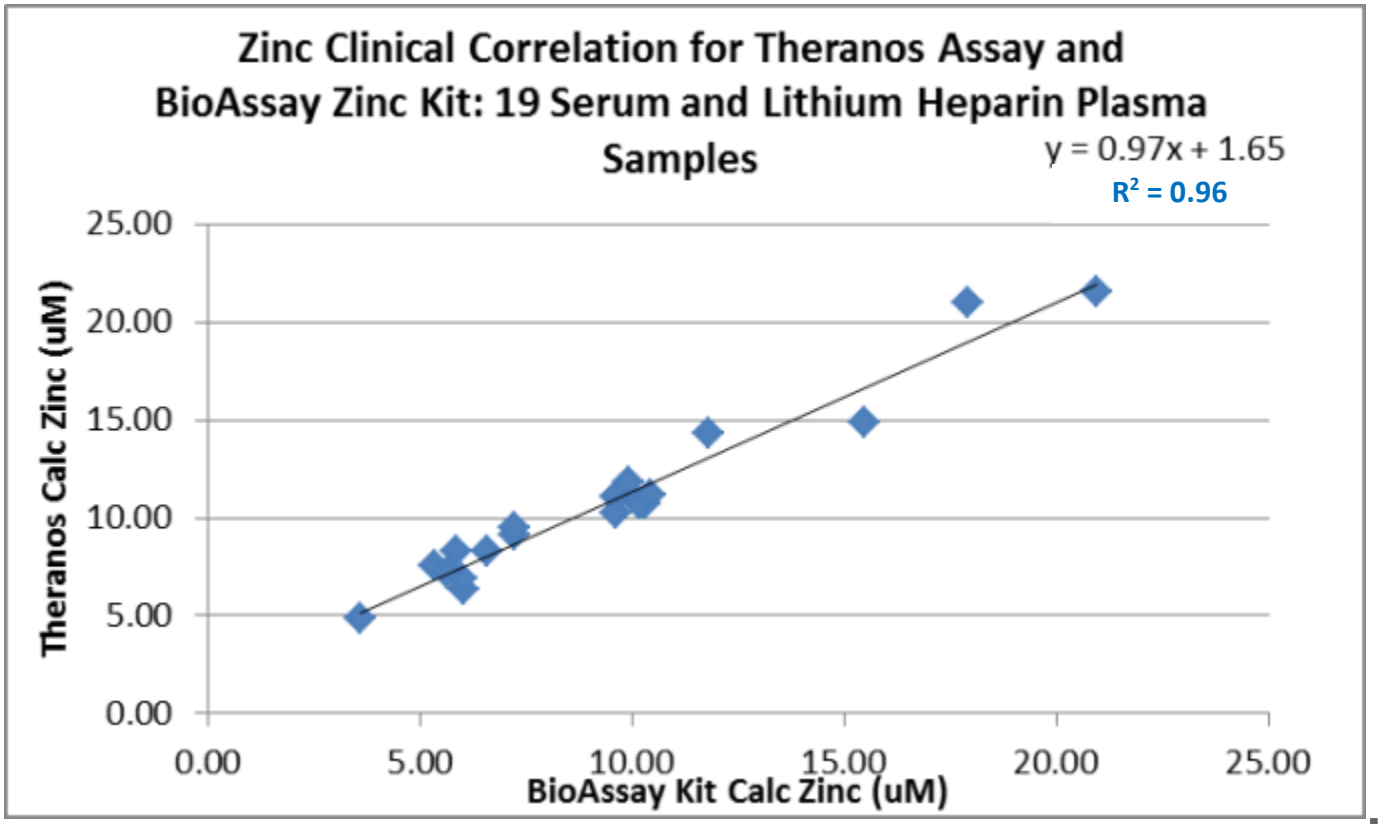
theranos

VLDL-Cholesterol



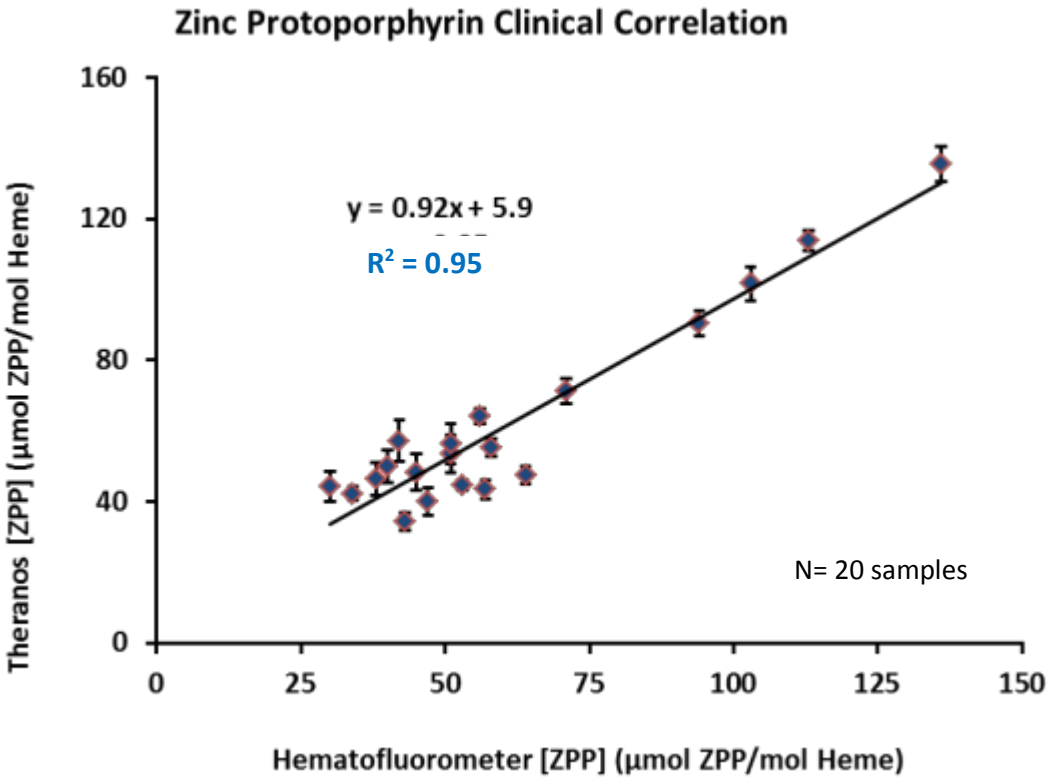
theranos

Zinc (Plasma/Serum)



theranos

Zinc Protoporphyrin

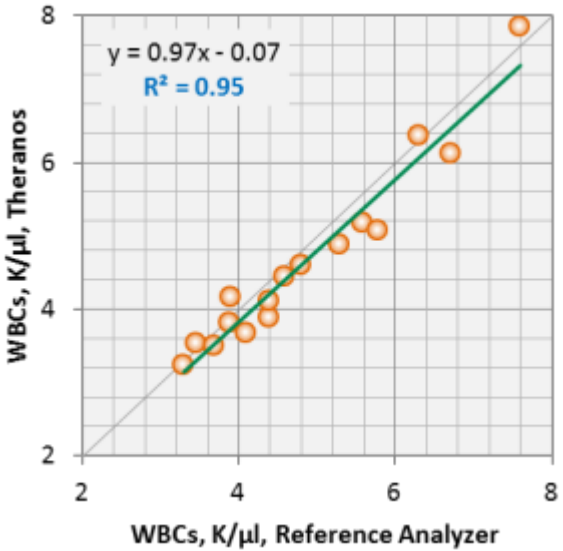


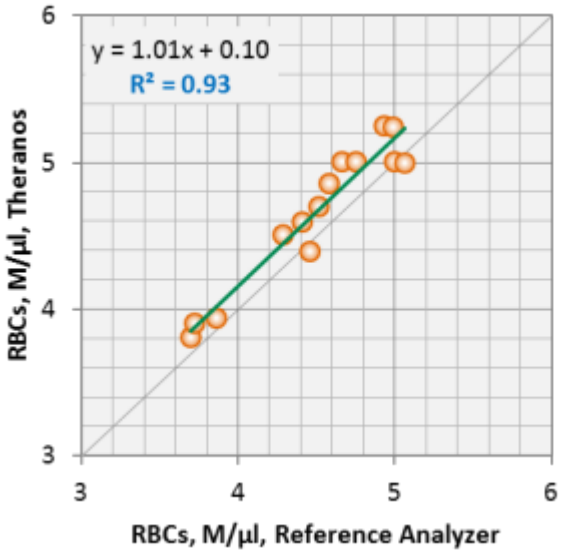
theranos

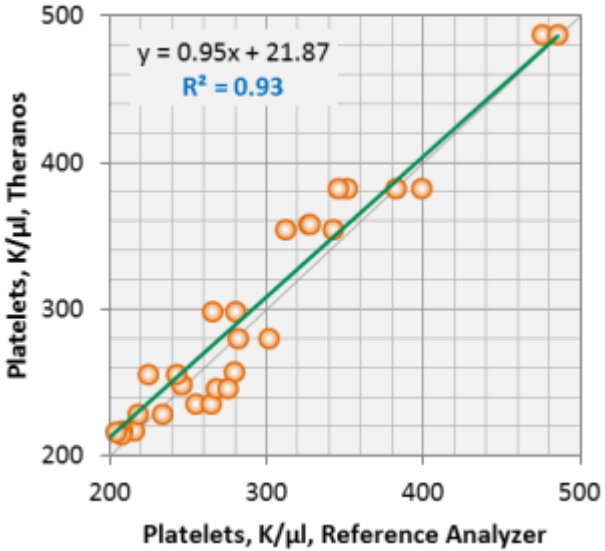
cytometry

theranos

Total WBC, RBC and Platelet Counts: correlation between Theranos platform and hematology analyzer



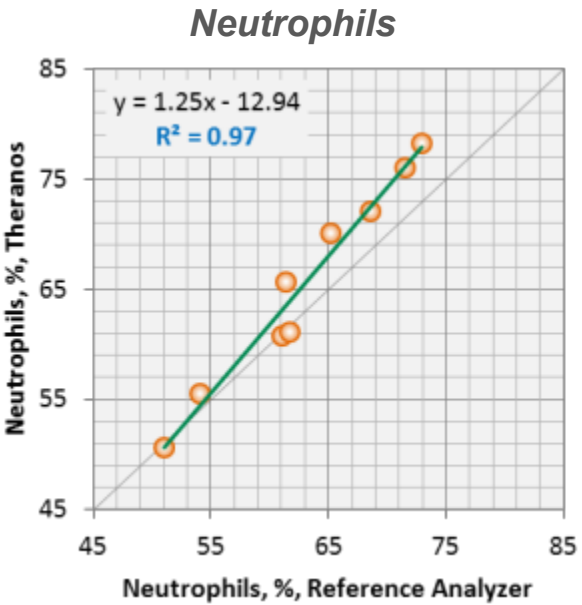


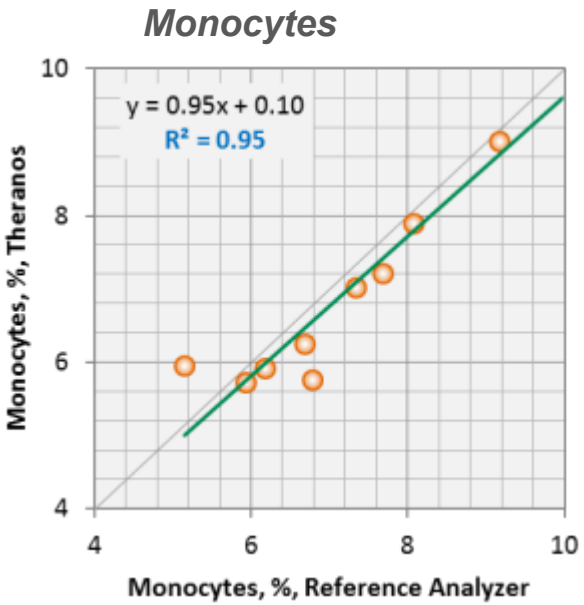


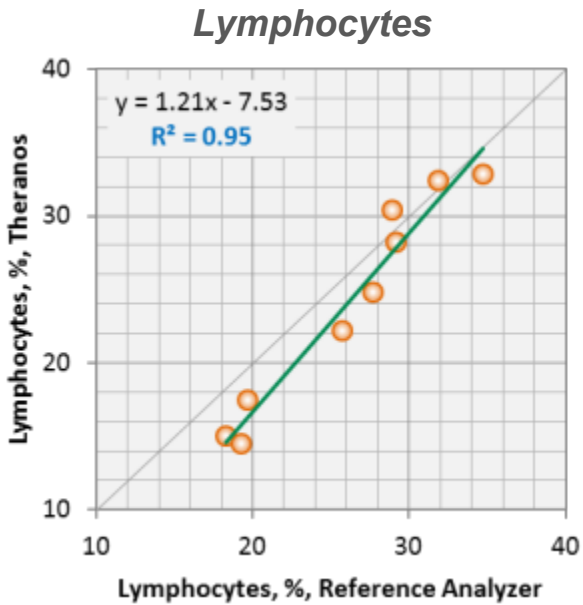
theranos

Correlation of WBC-differential assay between Theranos platform and reference hematology analyzer

All numbers are WBC cell type proportions expressed as percentages of total WBC







theranos

Epithelial Cells – Urine Microscopy

Epithelial Cells

REF / Theranos	none	rare	few	mod	many
none	**2**	0	0	0	0
rare	10	**8**	0	0	0
few	1	1	**2**	0	0
mod	0	2	0	**0**	0
many	1	0	0	0	**0**

theranos

WBC – Urine Microscopy

WBCs

REF / Theranos	none	rare	occ	few	mod	many
none	**2**	2	0	0	0	0
rare	1	**13**	1	0	0	0
occ	0	3	**0**	0	0	0
few	0	2	0	**0**	0	0
mod	0	1	0	0	**0**	0
many	0	0	0	0	0	**2**

theranos

RBC – Urine Microscopy

RBCs

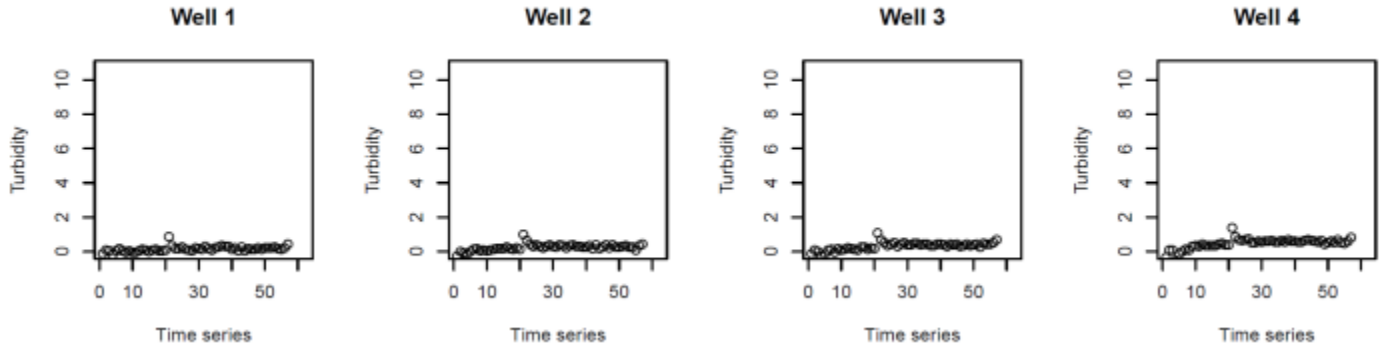
REF / Theranos	none	rare	occ	few	mod	many
none	**1**	0	0	1	0	0
rare	4	**6**	1	1	0	0
occ	0	4	**1**	0	0	0
few	0	3	2	**0**	0	0
mod	0	0	0	0	**0**	0
many	0	1	1	0	1	**0**

nucleic acid amplification

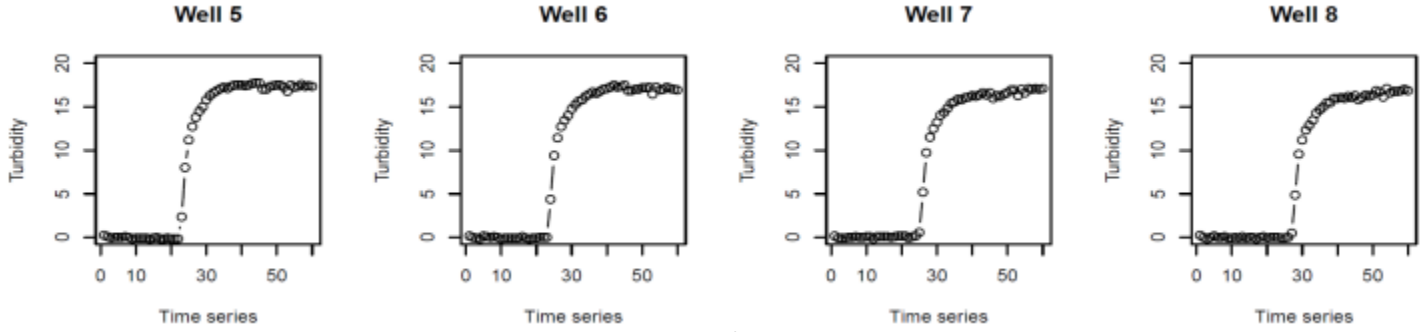
theranos

NAA detection (E. Coli O157)

Negative

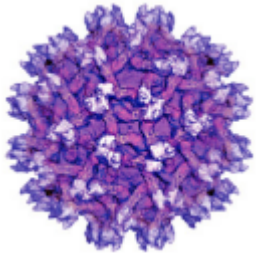


Positive



theranos

Dengue Virus (RNA extracts)



		Dengue Assay Results		
		Dengue 1	Dengue 2	Dengue 3
Sample	Dengue 1	Positive 100% (24/24)	Negative 100% (16/16)	Negative 100% (16/16)
	Dengue 2	Negative 100% (16/16)	Positive 100% (24/24)	Negative 100% (16/16)
	Dengue 3	Negative 100% (16/16)	Negative 100% (16/16)	Positive 100% (24/24)

theranos

Theranos Dengue Assays Testing with RNA Targets

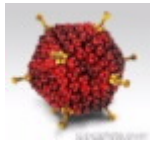
Theranos primers were verified to perform well against intended pathogen Dengue targets with no cross reactivity.
Theranos Dengue assays detect Dengue 1, 2, 3 and 4 with good specificity.

Dengue Amplification/Cross Reactivity Table at 10K copies/uL

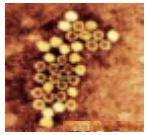
Dengue	Assay 1	Assay 2	Assay 3	Assay 4
Sample 1	Yes	No	No	No
Sample 2	No	Yes	No	No
Sample 3	No	No	Yes	No
Sample 4	No	No	No	Yes

theranos

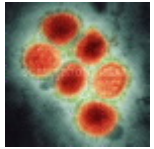
Upper Respiratory Tests



Adenovirus

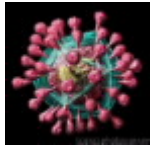


Bocavirus

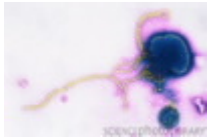


Influenza A virus – H1N1

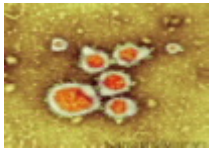
Influenza A virus – H3N2



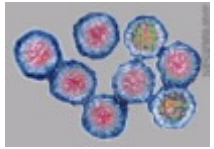
Coronavirus



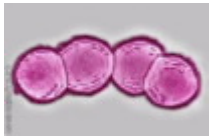
Parainfluenzavirus

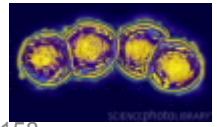


Respiratory syncytial virus



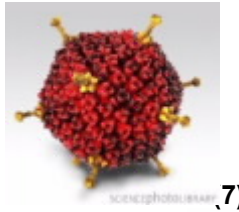
Rhinovirus





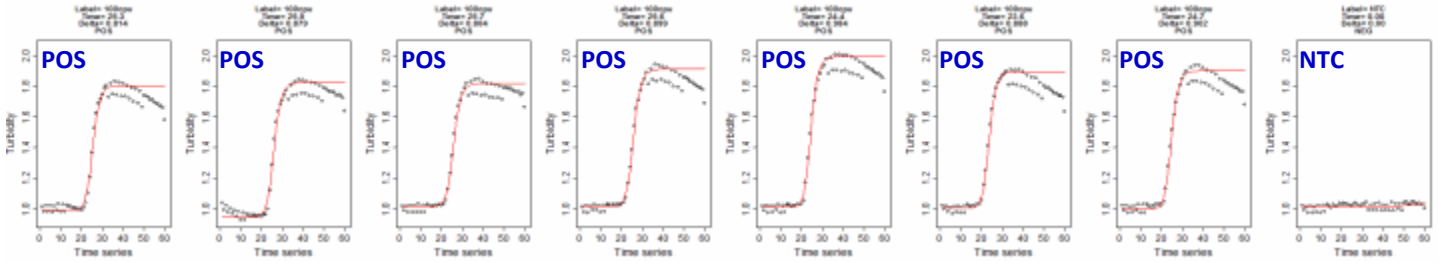
theranos

Adenovirus (8 assays with DNA targets)

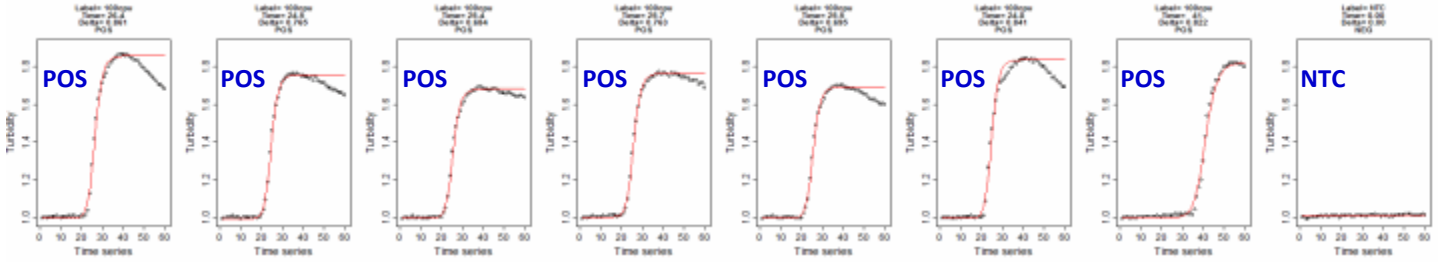


LoD is 12 copies/µl with a mean inflection time of 43.1±1.4 minutes.

(7) 100 copies/µl target T119E1-001 amplified by P119E1-002 multiplexed with P117B1-001 (mean: 25.0±0.8 min).

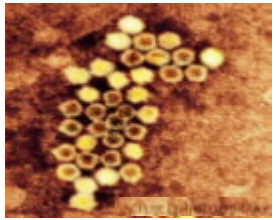


(8) 100 copies/µl target T119E2-001 amplified by P119E1-002 multiplexed with P117B1-001 (mean: 25.4±0.7 min)..



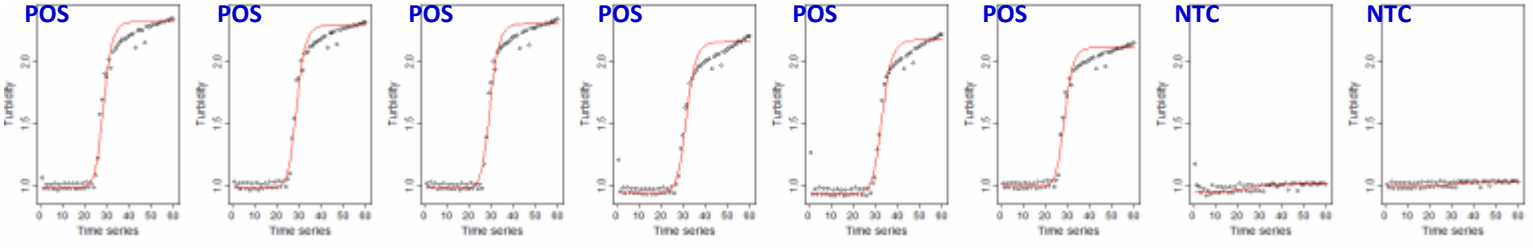
theranos

Bocavirus (Assay with DNA target)



LoD is 7 copies/µl with a mean inflection time of 30.2±1.7 minutes.

100 copies/ul target T126A1-001 amplified by primer set P126Ard-001 (mean: 25.4±0.4 min).

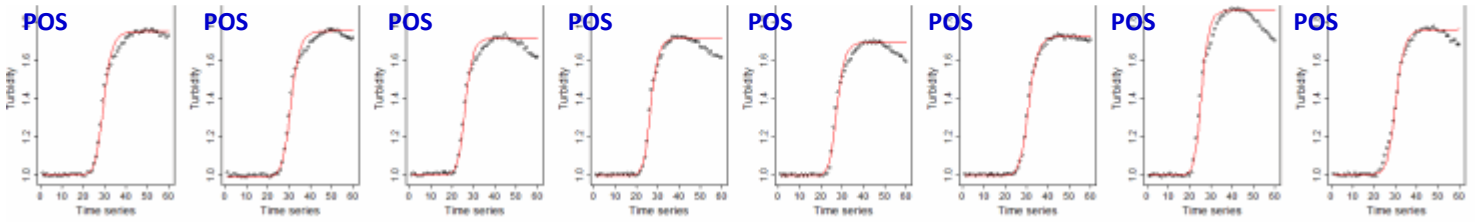


theranos

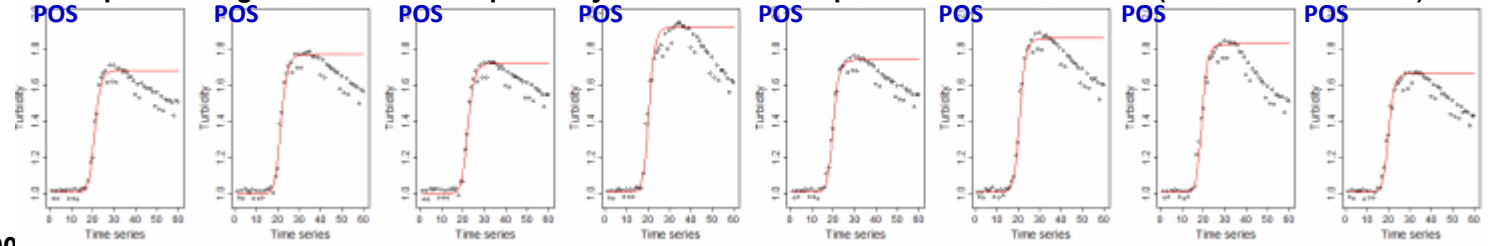
Influenza A virus – H1N1 (3 assays with RNA target)

LoD is 11 copies/µl with a mean inflection time of 36.3±2.5 minutes.

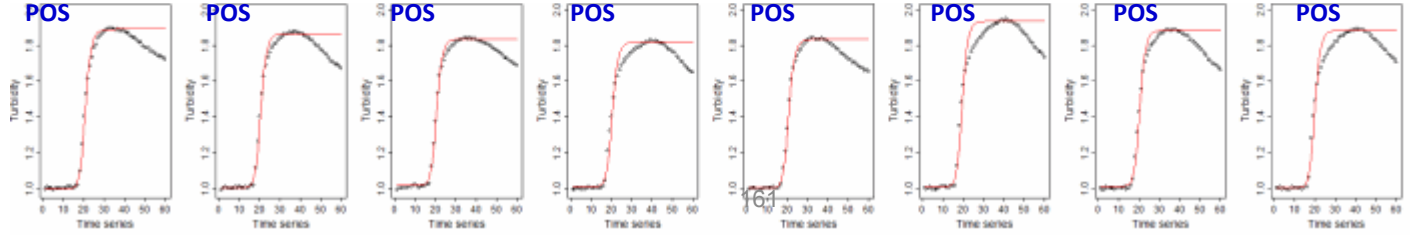
100 copies/ul target T122A1 RNA amplified by P122A1-001 multiplexed with P122B1 & C1 (mean: 28.4 ±2.2 min).



100 copies/ul target T122B2 RNA amplified by P122B1-001 multiplexed with P122A1 & C1 (mean: 20.5 ±0.9 min).

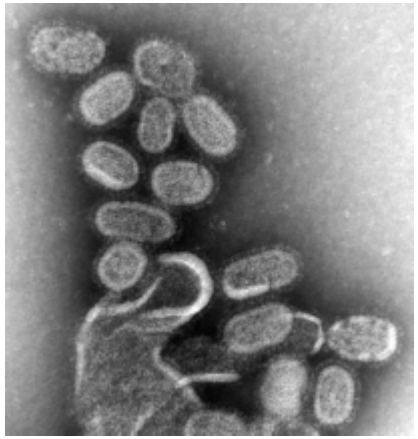


100 copies/ul target T122C1 RNA amplified by P122C1-001 multiplexed with P122A1 & C1 (mean: 20.5 ±0.4 min).



theranos

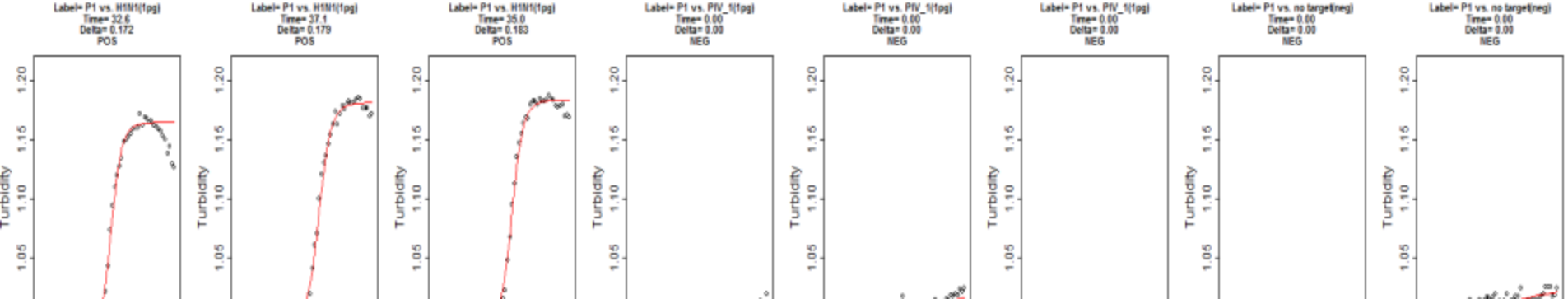
H1N1 Assay (Specificity)



	H1N1 Assay Results	
	H1N1 Positive	H1N1 Negative
H1N1 sample	100% (60/60)	0% (32/32)
Cross-reactivity (24 species)	0% (0/96)	100% (96/96)

H1N1 assay with H1N1 sample

H1N1 assay with PIV sample



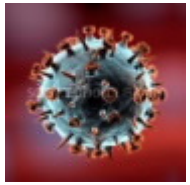
H1N1 Assay (Sensitivity)

H1N1 Assay

	Inflection Time (min)	
Performance Test	**Mean**	**SD (1)**
Negative	No Amp	nd
Positive (1 pg)		
TH1S5	19.9	0.3
Titration w/ TH1S5 (cp/µL)		
10,000	18.8	0.1
1,000	20.1	0.1
100	22.2	1.3
10	26.2	2.0
1	30.4	6.4

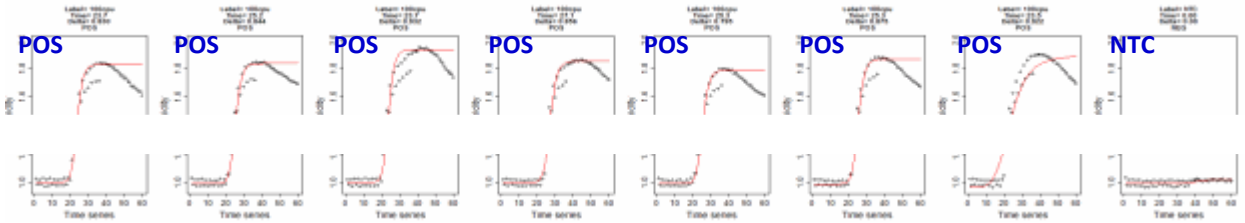
theranos

Influenza A virus – H3N2 (3 assays with RNA target)

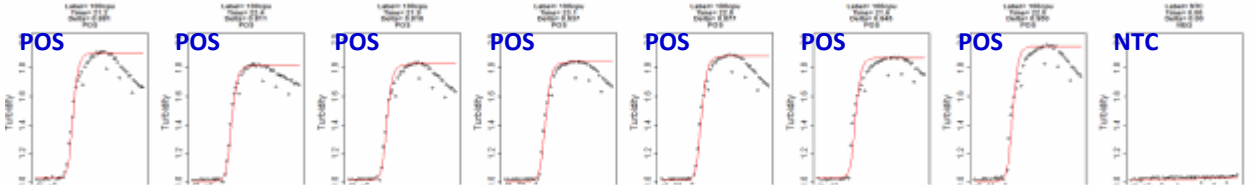


LoD is 7 copies/µl with a mean inflection time of 35.1±2.1 minutes.

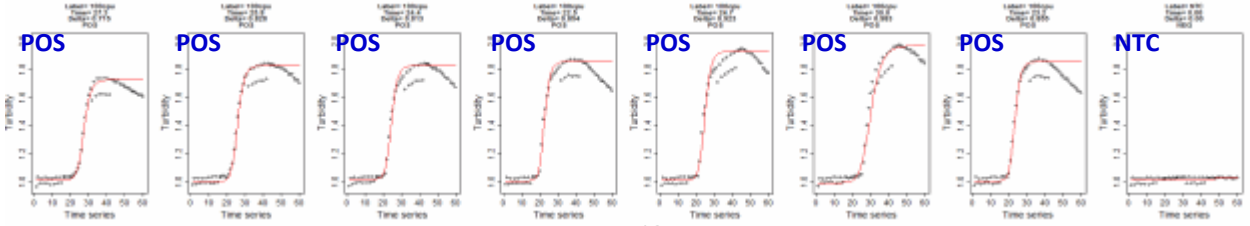
100 copies/ul target T124A1 RNA amplified by P124A1-001 multiplexed with P124B1 & C1 (mean: 24.8±1.3 min).



100 copies/ul target T124B RNA amplified by P124B1-001 multiplexed with P124A1 & C1 (mean: 22.1±0.7 min).



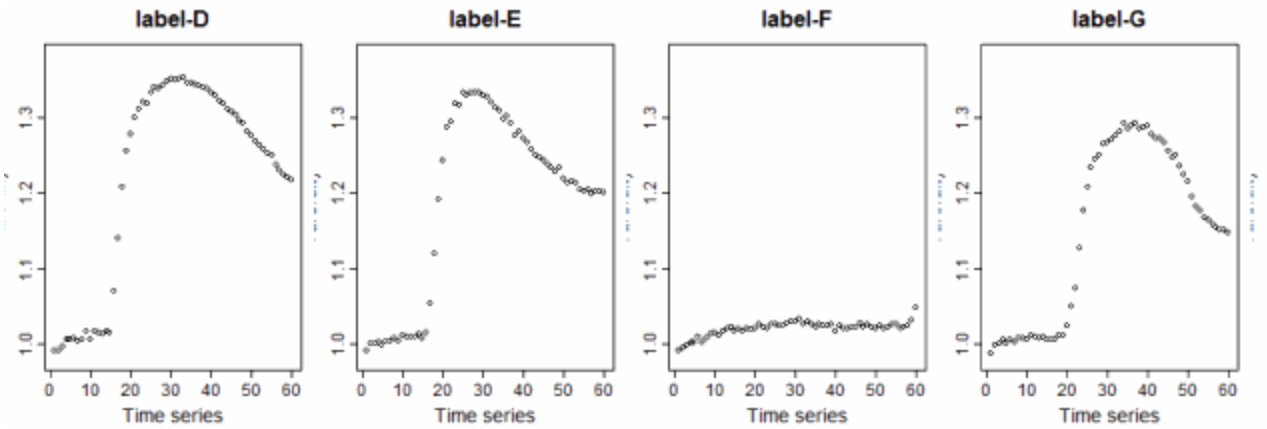
100 copies/ul target T124C RNA amplified by P124C1-001 multiplexed with P124A1 & B1 (mean: 25.4±2.6 min).



theranos

H3N2 Brisbane strain (inactivated virus)

H3N2 assay with H3N2 sample **Negative Control** **Positive Control**

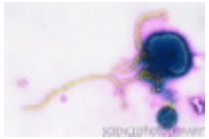


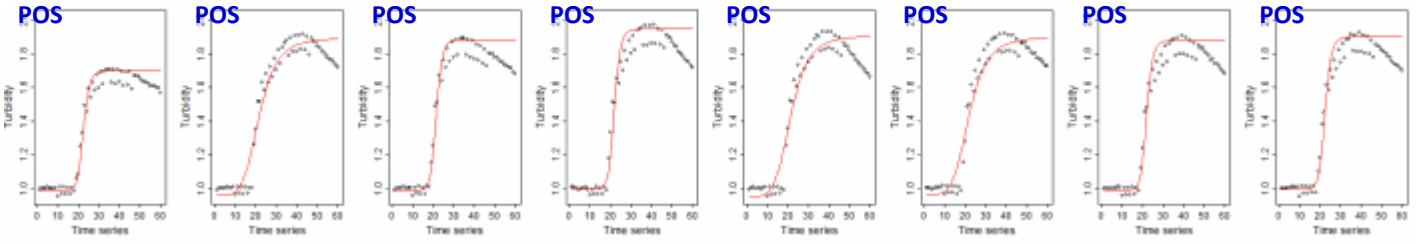
theranos

Parainfluenzavirus (7 assays with RNA target)

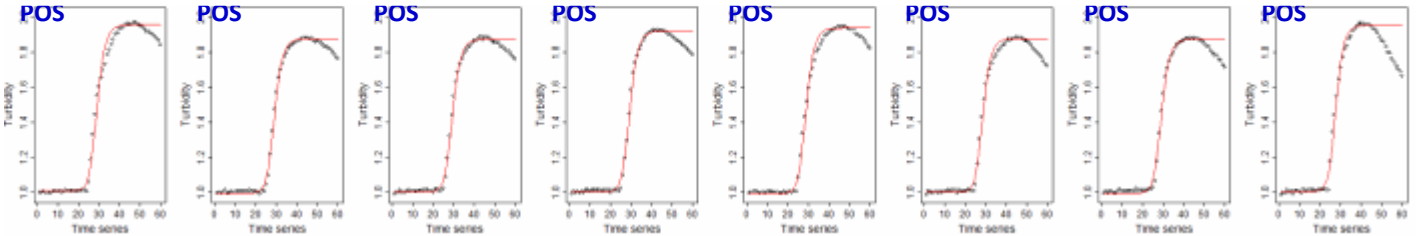
LoD is 2 copies/µl with a mean inflection time of 42.8±3.0 minutes.

(6) 100 copies/µl target T108A1 RNA amplified by P108A1 multiplexed with P103A1, P104B1, P105B1 & P107A1 (mean: 21.8±0.4 min).



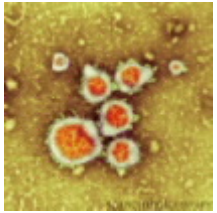


(7) 100 copies/µl target T108B1 RNA amplified by P108A1 multiplexed with P103A1, P104B1, P105B1 & P107A1 (mean: 28.8±0.6 min).



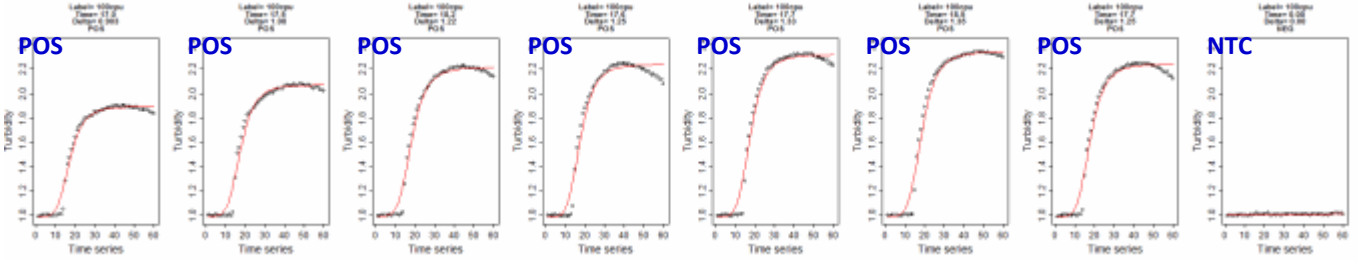
theranos

Respiratory syncytial virus (2 assays with RNA target)

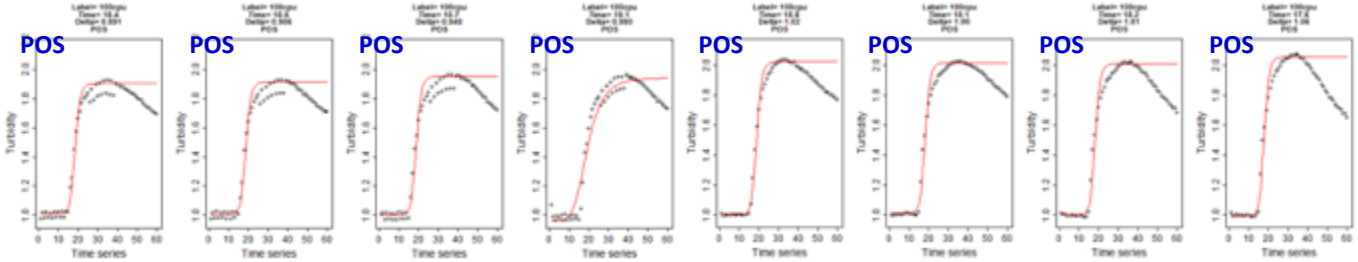


LoD is 20 copies/µl with a mean inflection time of 25.4±2.6 minutes.

(1) 100 copies/µl target T109A1 RNA amplified by P109A1 multiplexed with P110A1 (mean: 17.7±0.5 min).

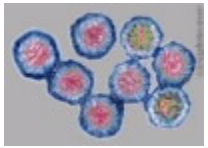


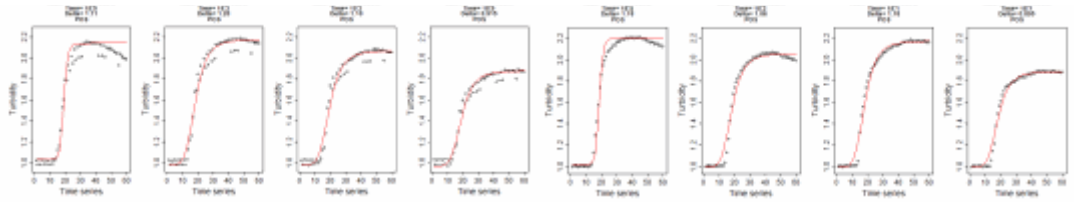
(2) 100 copies/µl target T110A1 RNA amplified by P110A1 multiplexed with P109A1 (mean: 18.5±0.4 min).



theranos

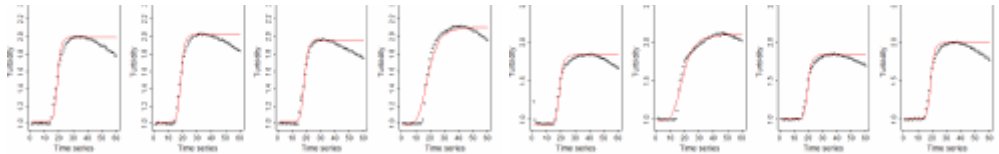
Rhinovirus (14 assays with RNA target)





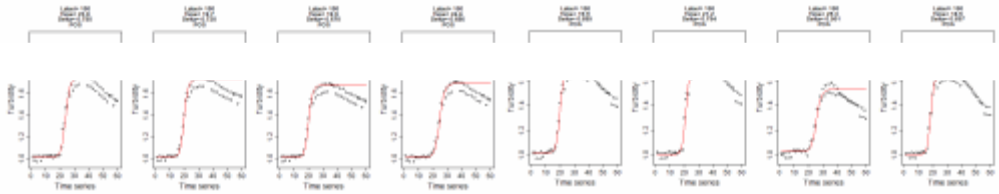
(B) 100 copies/µl target T125D1 RNA amplified by P125D1-001 (mean: 21.3±0.8min).

POS POS POS POS POS POS



(C) 100 copies/µl target T125E1 RNA amplified by P125E3-001 (mean: 17.1±0.6min).

POS POS POS POS POS POS

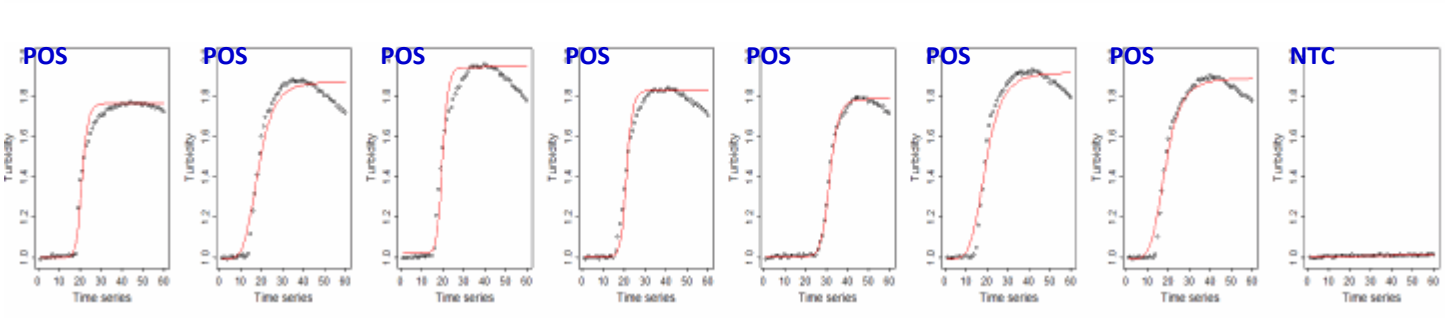


theranos

Streptococcus pneumoniae (Assay with DNA target)

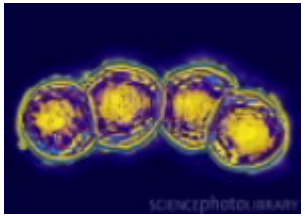
LoD is 100 copies/µl with a mean inflection time of 19.8±1.1 minutes.

100 copies/ul target SPS1 DNA amplified by StrPset1 primer set (mean: 18.0±1.0min)



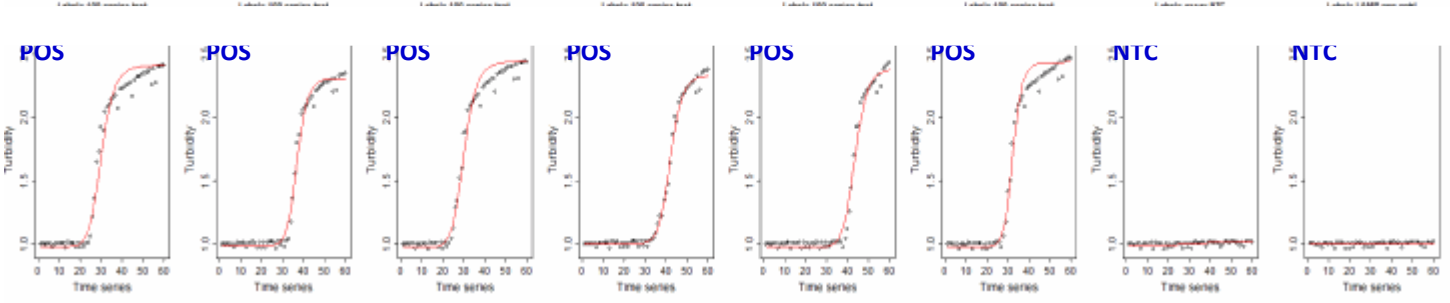
theranos

Penicillin-resistant Streptococcus pneumoniae (Assay with DNA target)



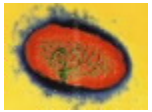
LoD is 10 copies/µl with a mean inflection time of 41.6±9.4 minutes.

100 copies/ul target T120A1 DNA amplified by P120B1 primer set (mean: 28.5±0.4min)



theranos

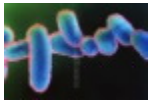
Lower Respiratory Panel



Bordetella parapertussis

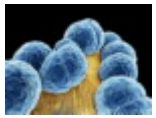
Bordetella pertussis

Enterobacter aerogenes

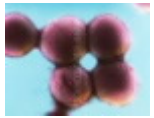


Escherichia coli

Staphylococcus aureus



Methicillin-resistant Staphylococcus aureus



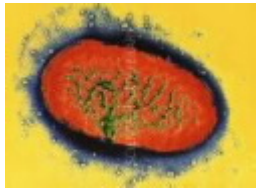
Moraxella catarrhalis

Mycoplasma pneumoniae

Streptococcus Group A

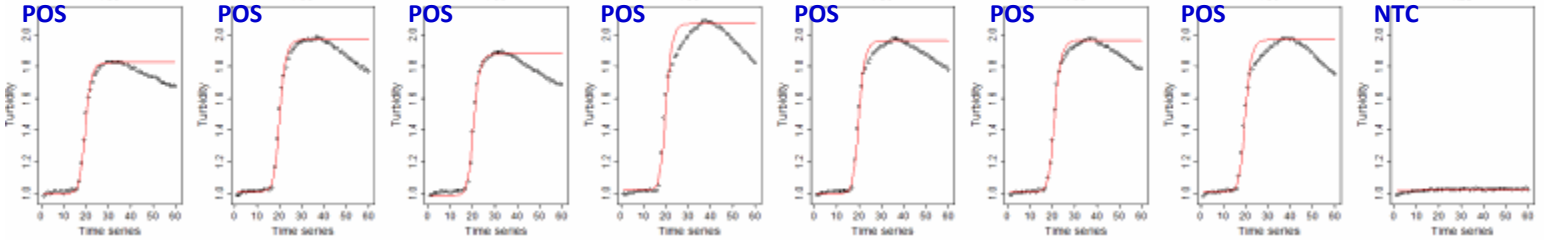
theranos

Bordetella parapertussis (Assay with DNA target)



LoD is 10 copies/µl with a mean inflection time of 25.5±2.9 minutes.

100 copies/ul target T123B1 DNA amplified by P123C1 primer set (mean: 21.5±1.5min).

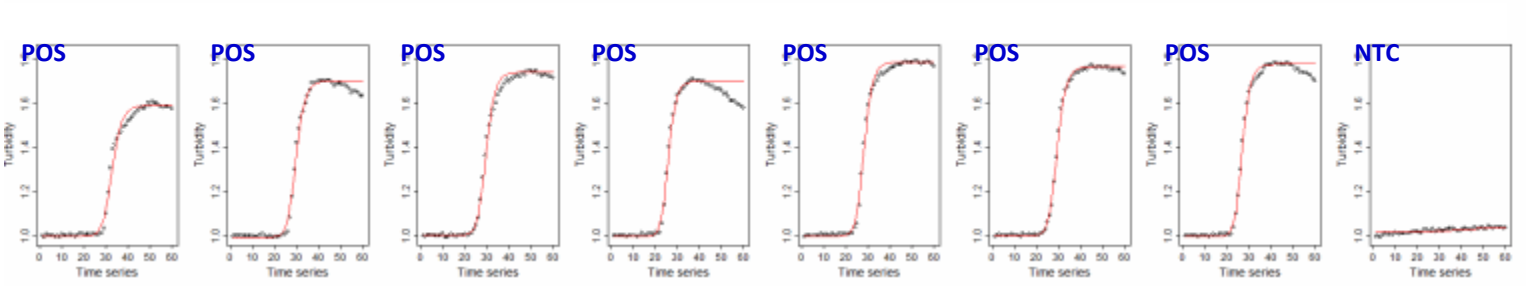


theranos

Bordetella pertussis (Assay with DNA target)

LoD is 100 copies/µl with a mean inflection time of 28.9±2.2 minutes.

100 copies/ul target T123A1 DNA amplified by P123A1 primer set (mean: 25.0±1.3 min).

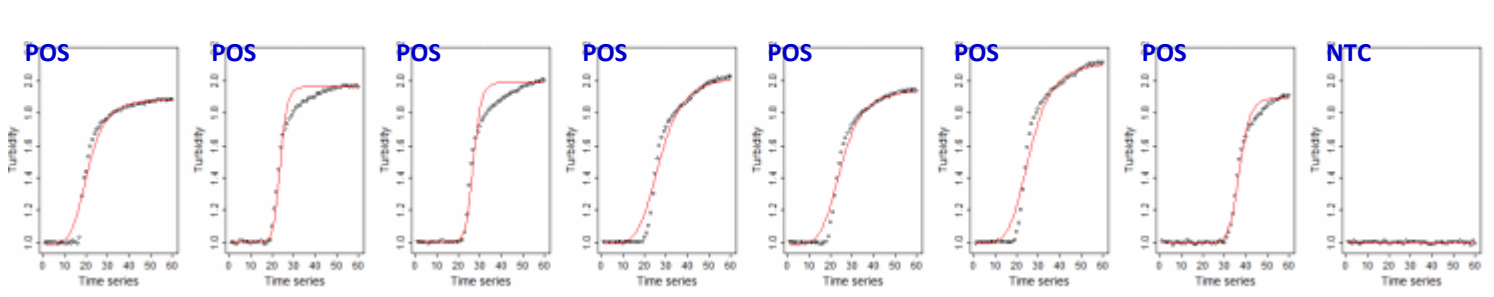


theranos

Enterobacter aerogenes (Assay with DNA target)

LoD is 100 copies/µl with a mean inflection time of 27.5±2.1 minutes.

100 copies/uL target T150B1 DNA amplified by P150B2 primer set (mean: 27.5±2.1 min)

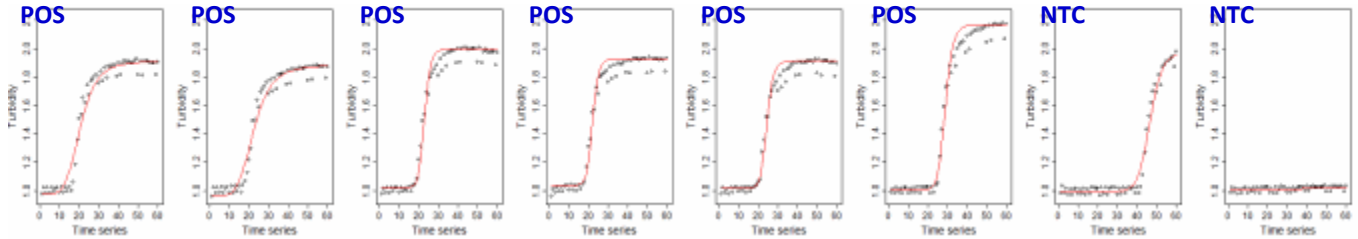


theranos

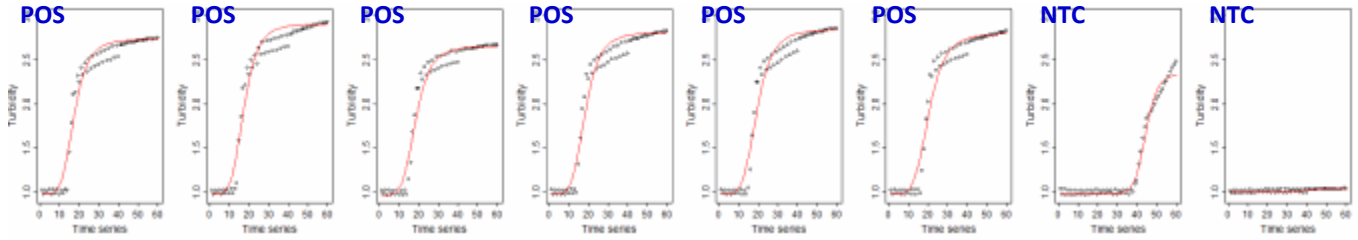
Escherichia coli (3 assays with DNA target)

LoD is 100 copies/µl with a mean inflection time of 35.0±7.9 minutes.

100 copies/ul target T136A1 amplified by P136A1 multiplexed with P136B2 & C1 (mean: 22.3±2.4 min).



100 copies/ul target T136B1 amplified by P136B2 multiplexed with P136A1 & C1 (mean: 18.4±1.1 min).

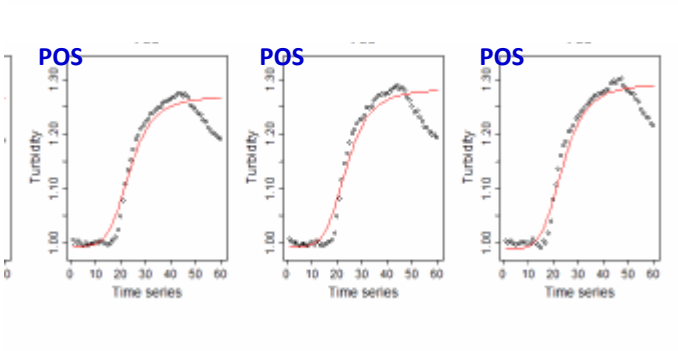


theranos

Staphylococcus aureus (Assay with DNA target)

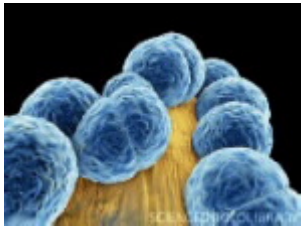
LoD is 10 copies/µl with a mean inflection time of 30.7±2.1 minutes.

100 copies/uL target T101A1 DNA amplified by P101A1 primer set (mean: 19.2±1.3 min).



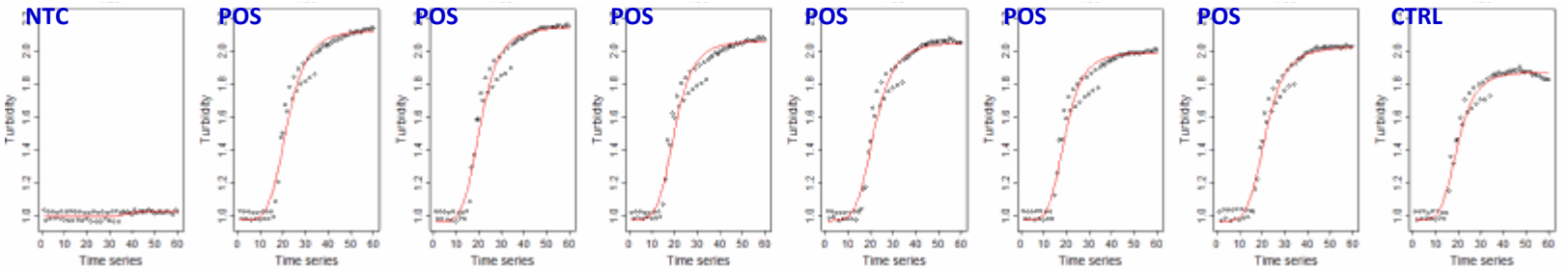
theranos

Methicillin-resistant Staphylococcus aureus (Assay with DNA target)



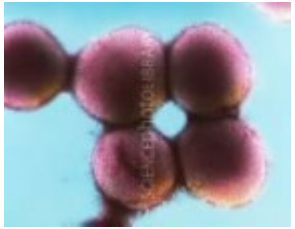
LoD is 10 copies/µl with a mean inflection time of 30.7±2.1 minutes.

100 copies/uL target T102 DNA amplified by P102B1 primer set (mean: 21.0±0.9 min).



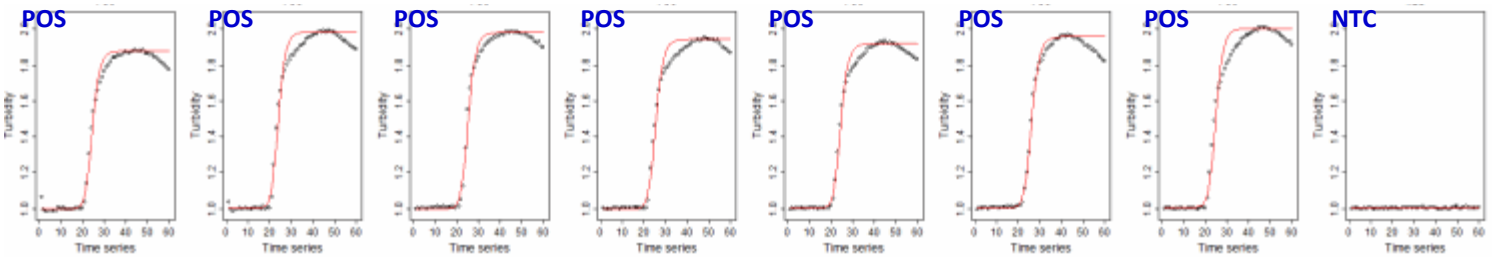
theranos

Moraxella catarrhalis (2 assays with DNA target)



LoD is 10 copies/µl with a mean inflection time of 29.9±1.9 minutes.

100 copies/uL target T131B1 DNA amplified by P131B1 primer set (mean: 26.6±0.9 min).

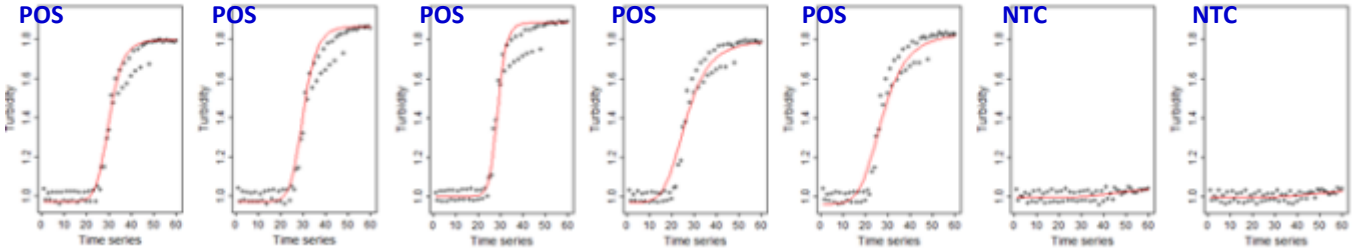


theranos

Mycoplasma pneumoniae (Assay with DNA target)

LoD is 5 copies/µl with a mean inflection time of 35.2±0.5 minutes.

100 copies/uL target MPS1 DNA amplified by MyPset1 primer set (mean: 25.8±3.1 min).

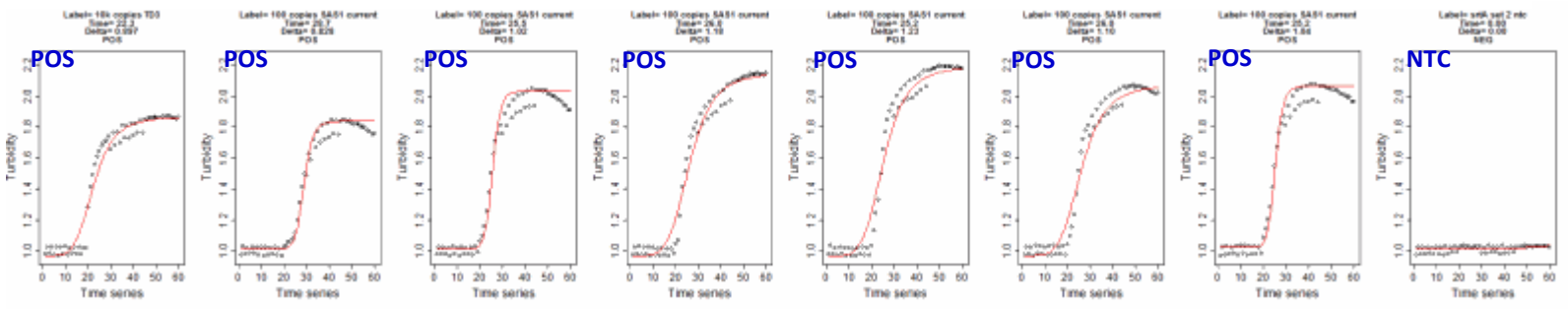


theranos

Streptococcus Group A (Assay with DNA target)

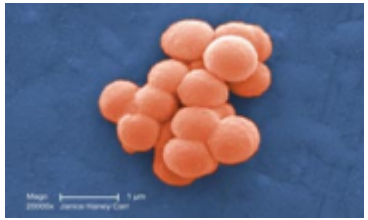
LoD is 100 copies/µl with a mean inflection time of 28.6±1.3 minutes.

100 copies/µl target SPS1 DNA amplified by PStrA primer set (mean: 25.0±1.3 min)



theranos

Strep A (inactivated bacteria)



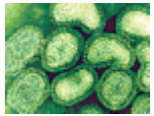
Strep A Assay

Performance Test	Mean
Negative	No Amp

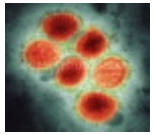
Extract (cp/µL)	(min)
800	24.0
80	28.3
8	40.7

theranos

Respiratory Panel

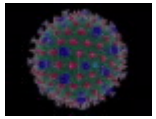


Influenza A virus – H1N1 Seasonal



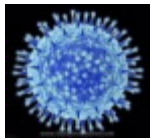
Influenza A virus – H1N1 Novel

Influenza A virus – H3N2

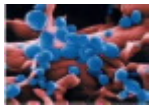


Influenza B virus

Mycobacterium tuberculosis

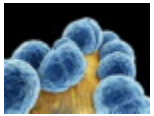


H7N9 Flu



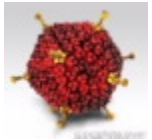
H5N1 Flu

Bordetella pertussis



Methicillin-resistant
Staphylococcus aureus

Staphylococcus aureus

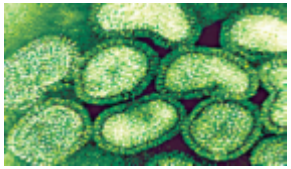


Adenovirus

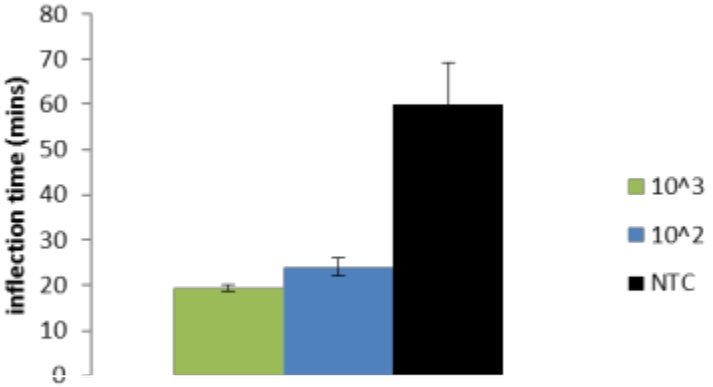
Streptococcus Group A

theranos

Influenza A virus – H1N1 Seasonal



Limit of Detection

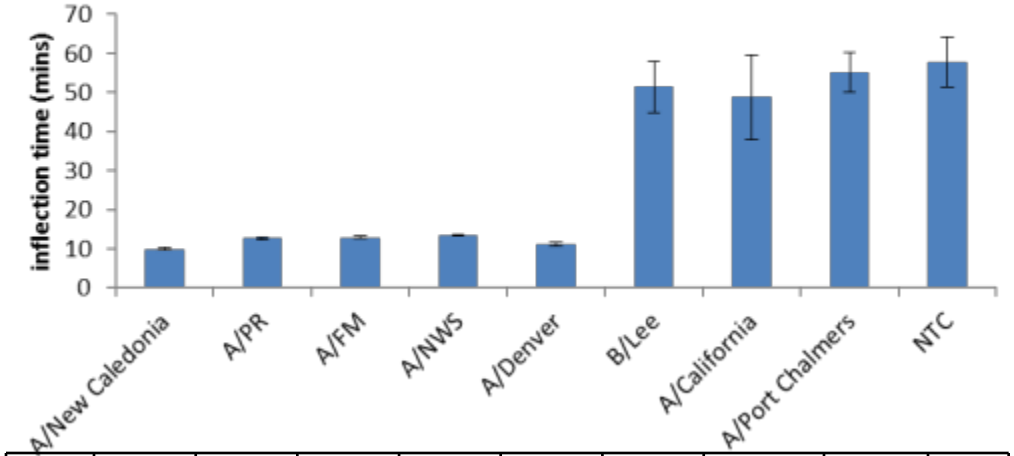


Copies/ul RNA, NTC-No template control

* Target used is the slowest of the cross targets

Inclusivity/Cross Target Detection

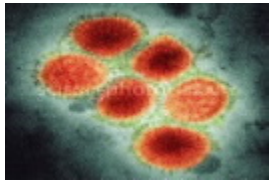
(viral lysate eluates)

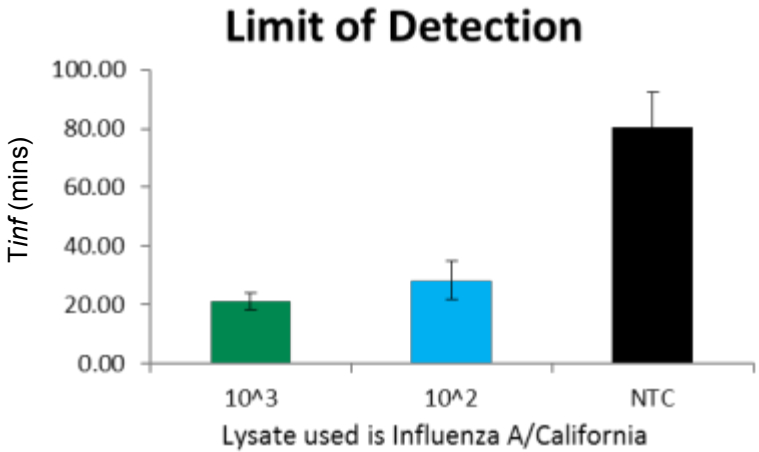


	A/New Caledonia	A/PR	A/FM	A/NWS	A/Denver	B/Lee	A/California	A/Port Chalmers	NTC
Avg	**9.90**	**12.67**	**12.88**	**13.53**	**11.20**	**51.46**	**48.80**	**55.30**	**57.85**
St dev	0.27	0.33	0.34	0.15	0.57	6.54	10.88	5.09	6.42

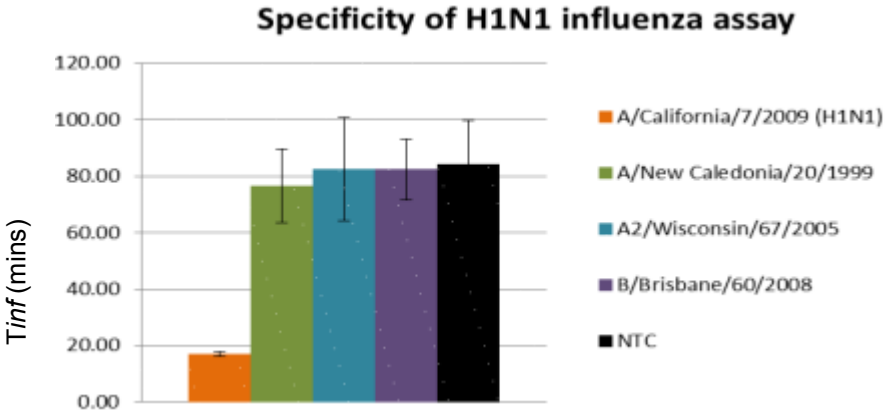
theranos

Influenza A virus – H1N1 Novel





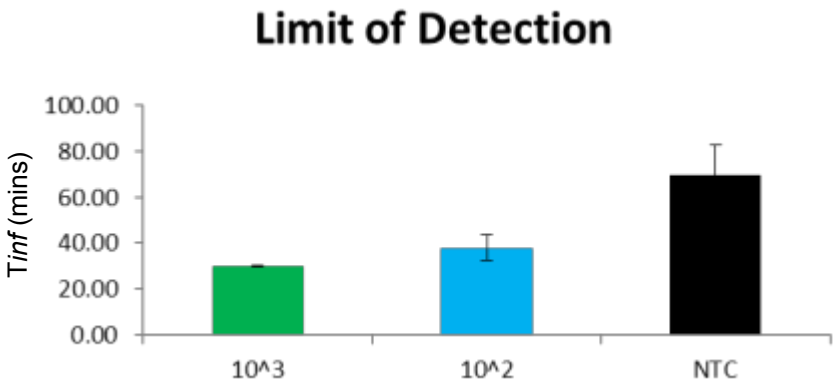
Copies/ul RNA, NTC-No template control



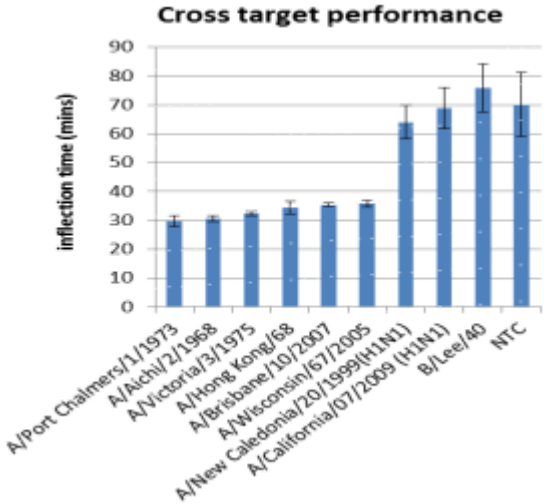
Influenza lysate	Average (minutes)	Standard Deviation
A/California/7/2009 (H1N1)	16.95	0.94
A/New Caledonia/20/1999	76.62	13.10
A2/Wisconsin/67/2005	82.52	18.42
B/Brisbane/60/2008	82.41	10.94
NTC	84.44	15.50

theranos

Influenza A virus – H3N2



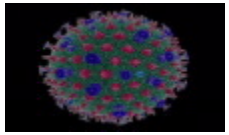
Copies/ul RNA, NTC-No template control

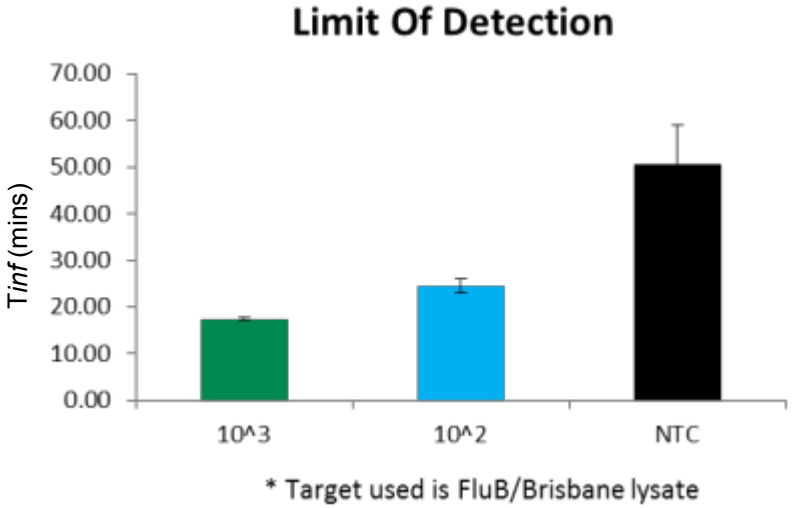


Lysate at ~10^4 copies/ul	Average (minutes)	Standard Deviation
A/Port Chalmers/1/1973	29.75	1.79
A/Aichi/2/1968	30.51	1.03
A/Victoria/3/1975	32.30	0.70
A/Hong Kong/68	34.41	2.20
A/Brisbane/10/2007	35.39	0.61
A/Wisconsin/67/2005	35.81	1.19
A/New Caledonia/20/1999(H1N1)	63.99	5.84
A/California/07/2009 (H1N1)	68.80	7.20
B/Lee/40	75.84	8.24
NTC	70.11	11.10

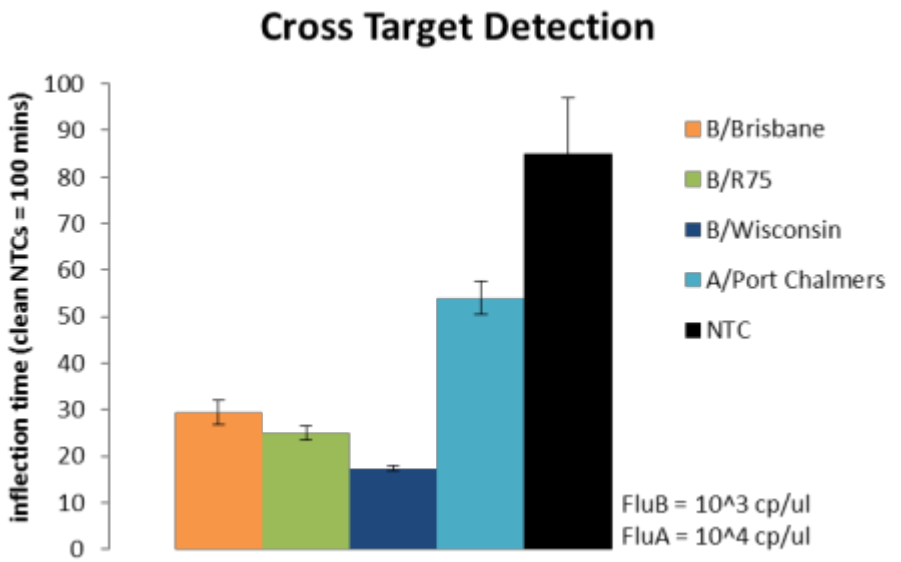
theranos

Influenza B virus





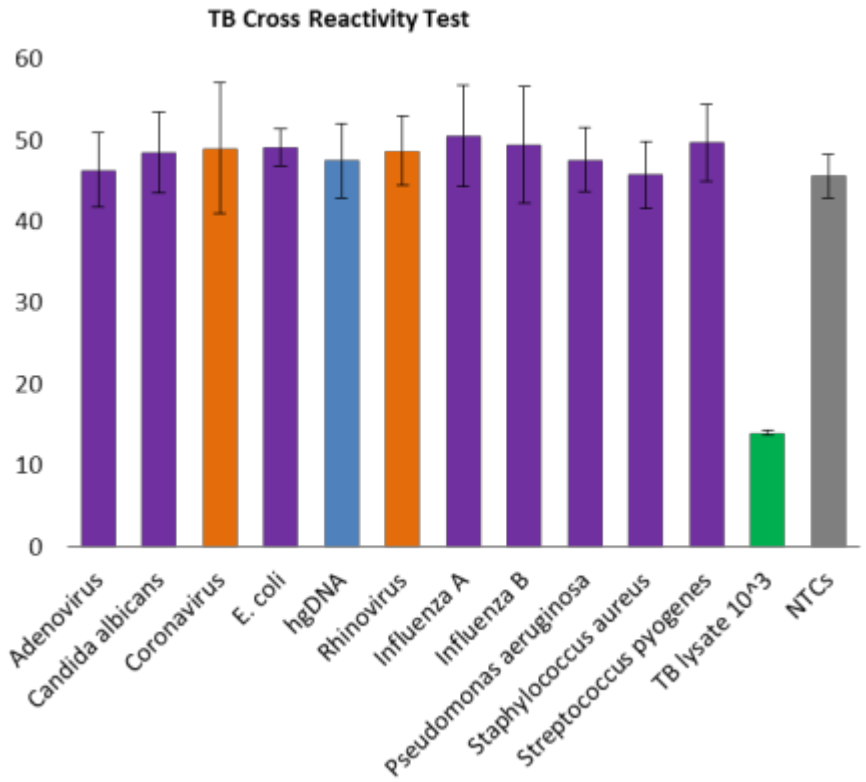
Copies/ul RNA, NTC-No template control

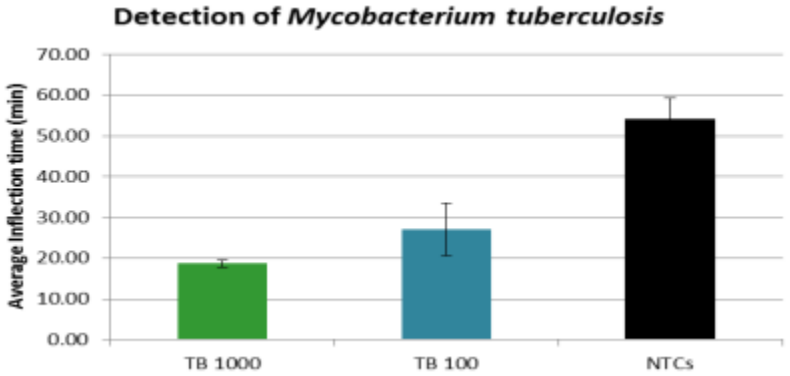


Lysate	Avg	SD
B/Brisbane	**29.42**	2.61
B/R75	**24.93**	1.44
B/Wisconsin	**17.36**	0.53
A/Port Chalmers	**53.93**	3.62
NTC	**85.06**	11.96

theranos

Mycobacterium tuberculosis





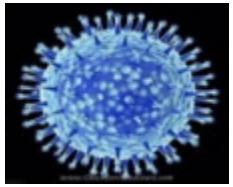
Copies/ul DNA, NTC-No template control

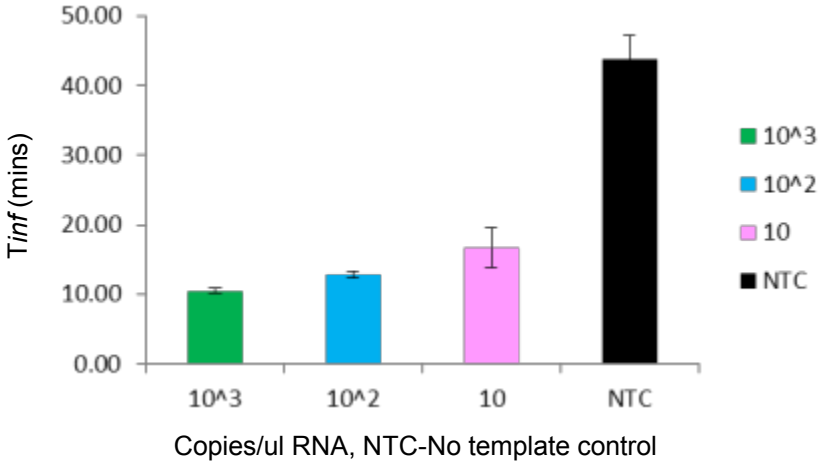
Cross reactivity test summary

	Final Copy Number	Average Inflection Time	Standard Deviation
Adenovirus	2.03X10^5	46.39	4.59
Candida albicans	10^5	48.53	4.96
Coronavirus	unknown (straight lysate)	49.06	8.06
E. coli	10^5	49.17	2.22
hgDNA	5ng	47.53	4.53
Rhinovirus	unknown (straight lysate)	48.74	4.29
Influenza A	10^5	50.55	6.20
Influenza B	10^5	49.48	7.22
Pseudomonas aeruginosa	10^5	47.59	3.95
Staphylococcus aureus	10^5	45.83	4.11
Streptococcus pyogenes	10^5	49.72	4.69
MTb 10^3	10^3	14.02	0.34
NTCs	-	46.28	2.34

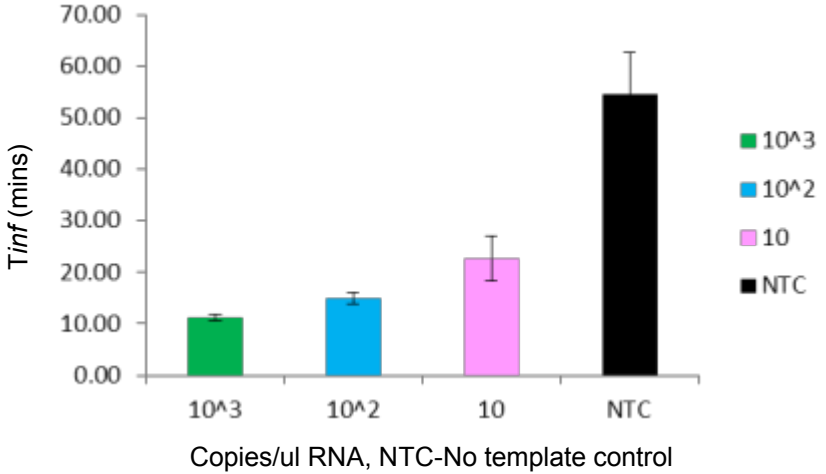
theranos

H7N9 Flu





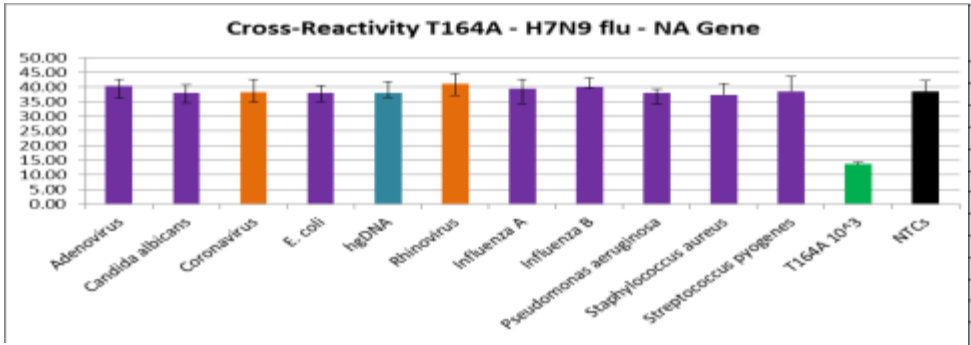
NA gene



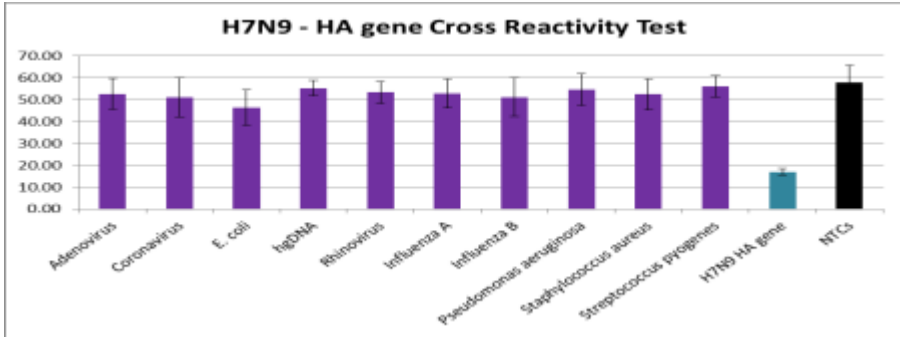
HA gene

theranos

H7N9 Flu



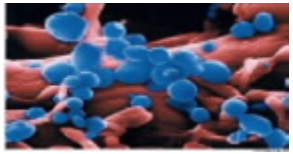
	Final Copy Number	Average Inflection Time	Standard Deviation
Adenovirus	2.03X10^5	40.25	2.36
Candida albicans	10^5	38.09	2.54
Coronavirus	unknown (lysate 1:10)	38.19	4.35
E. coli	10^5	37.91	2.48
hgDNA	5ng	37.96	4.01
Rhinovirus	unknown (lysate 1:10)	41.06	3.52
Influenza A	10^5	39.30	3.38
Influenza B	10^5	40.15	2.99
Pseudomonas aeruginosa	10^5	37.89	1.50
Staphylococcus aureus	10^5	37.30	3.89
Streptococcus pyogenes	10^5	38.56	4.97
H7N9 – NA gene 10^3	10^3	13.59	0.61
NTCs	-	38.38	3.77



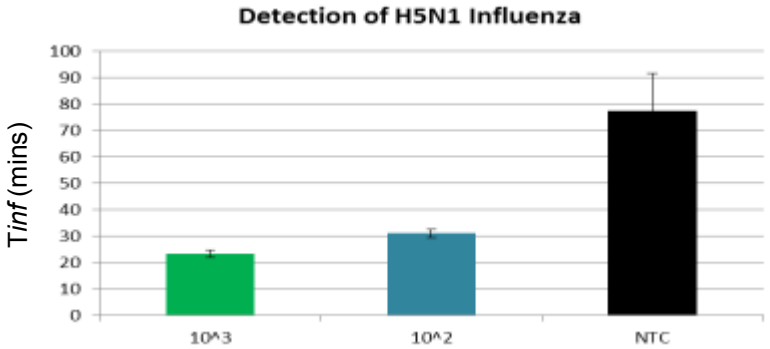
	Final Copy Number	Average Inflection Time	Standard Deviation
Adenovirus	2.03X10^5	52.63	6.96
Coronavirus	unknown (straight lysate)	51.08	8.92
E. coli	10^5	46.42	8.10
hgDNA	5ng	55.23	3.57
Rhinovirus	unknown (straight lysate)	53.27	4.96
Influenza A	10^5	52.75	6.61
Influenza B	10^5	51.10	8.79
Pseudomonas aeruginosa	10^5	54.54	7.13
Staphylococcus aureus	10^5	52.38	7.11
Streptococcus pyogenes	10^5	56.04	4.95
H7N9 HA gene	10^2	17.00	1.39
NTCs	-	57.87	7.65

theranos

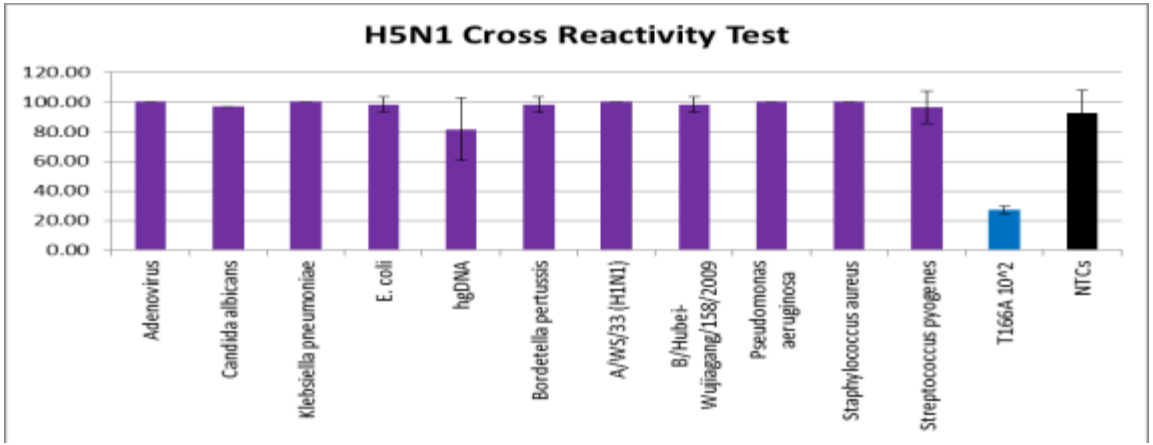
H5N1 Flu



Tested against 3 strains of H5N1	10^4	NTC
H5N1/Guangxi	20.09	50.76
H5N1/Hong Kong	15.56	60.03
H5N1/Xinjiang	16.41	59.15

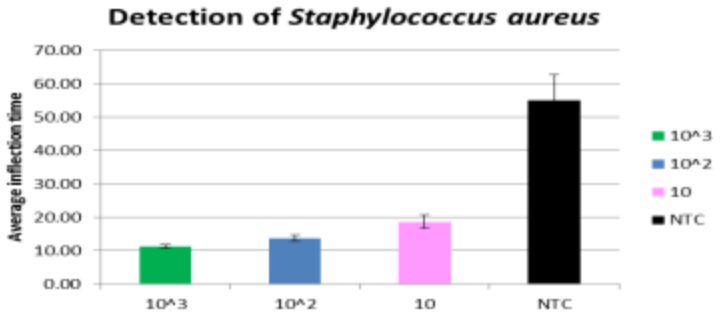


Copies/ul RNA, NTC-No template control

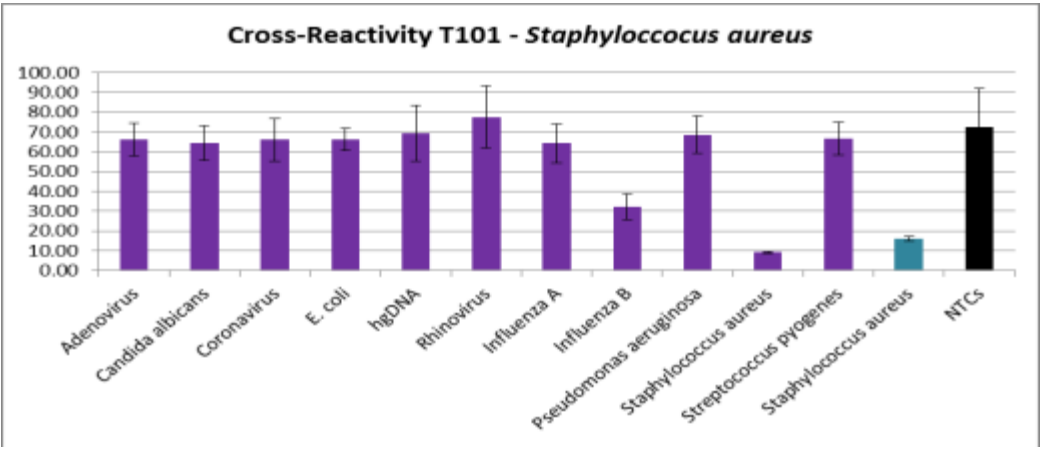


	Copy/µl	Average Inflection Time	Standard Deviation
Adenovirus	10^4	100.00	0.00
Candida albicans	10^5	96.70	0.00
Klebsiella pneumoniae	10^5	100.00	0.00
E. coli	10^5	98.29	4.85
hgDNA	2ng	81.42	21.11
Bordetella pertussis	10^4	98.09	5.41
A/WS/33 (H1N1)	10^5	100.00	0.00
B/Hubei-Wujiagang/158/2009	10^5	98.07	5.45
Pseudomonas aeruginosa	10^5	100.00	0.00
Staphylococcus aureus	10^5	100.00	0.00
Streptococcus pyogenes	10^5	96.15	10.89
T166A 10^2	10^2	27.33	2.48
NTCs	-	**92.32**	**15.35**

Staphylococcus aureus

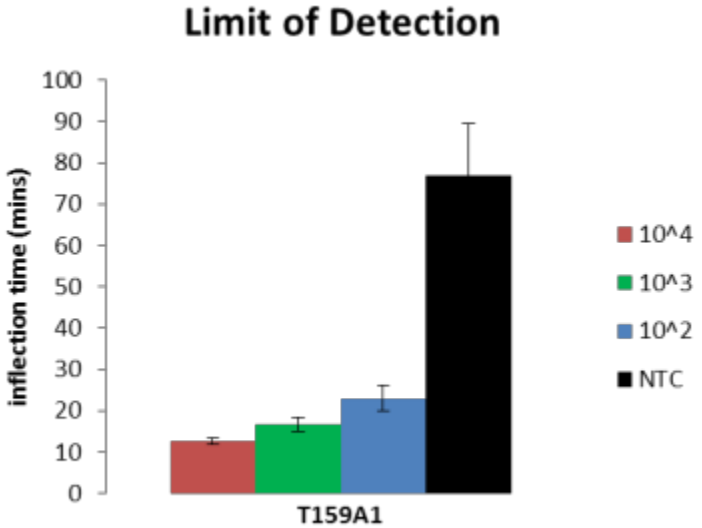


Copies/ul DNA, NTC-No template control

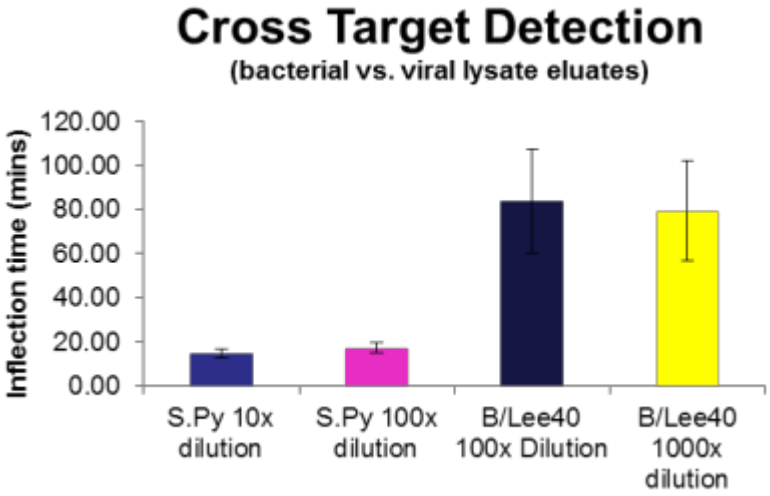


	Final Copy Number	Average Inflection Time	Standard Deviation
Adenovirus	2.03X10^5	66.13	8.30
Candida albicans	10^5	64.34	8.65
Coronavirus	unknown (lysate 1:10)	65.99	10.67
E. coli	10^5	66.33	5.64
hgDNA	5ng	69.36	14.09
Rhinovirus	unknown (lysate 1:10)	77.60	15.72
Influenza A	10^5	64.32	9.90
Influenza B	10^5	32.31	6.55
Pseudomonas aeruginosa	10^5	68.61	9.49
Staphylococcus aureus	10^5	9.15	0.45
Streptococcus pyogenes	10^5	66.61	8.30
Staphylococcus aureus	10^2	15.91	1.15
NTCs	-	72.31	19.56

Streptococcus Group A



Copies/ul DNA, NTC-No template control



theranos

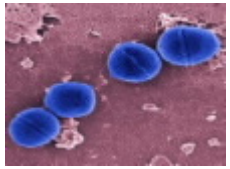
Theranos Influenza Panel – Clinical Samples

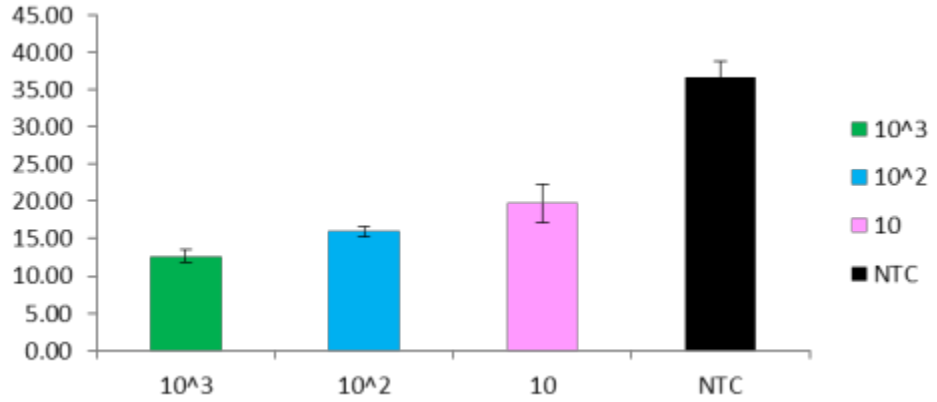
	FluB	H1S	H3S	H1Nov	Summary	Time
Sample1	-	-	-	-	Neg	
Sample2	-	-	-	-	Neg	
Sample3	-	+	-	-	H1S	7.53
Sample4	-	+	-	-	H1S	7.31
Sample5	-	+	-	-	H1S	9.94
Sample6	-	+	-	-	H1S	9.6
Sample7	-	+	-	-	H1S	8.23
Sample8	-	-	-	-	Neg	
Sample9	-	-	-	-	Neg	
Sample10	-	-	-	-	Neg	
Sample11	-	-	-	-	Neg	
Sample12	-	-	-	-	Neg	
Sample13	-	-	-	-	Neg	
Sample14	-	-	-	-	Neg	
Sample15	-	-	-	-	Neg	
Sample16	-	-	-	-	Neg	
Sample17	-	-	-	-	Neg	
Sample18	-	-	-	-	Neg	
Sample19	-	-	-	-	Neg	
Sample20	-	-	-	-	Neg	
Sample21	-	-	-	-	Neg	
Sample22	-	-	-	-	Neg	
Sample23	-	-	-	-	Neg	
Sample24	-	-	-	-	Neg	
Sample25	+	-	-	-	FluB	11.79
Sample26	+	-	-	-	FluB	10.24
Sample27	+	-	-	-	FluB	14.71
Sample28	-	-	-	-	Neg	

	BioFire	TNAA	Success Rate vs. BioFire
FluA H1N1 Pandemic	Negative	Negative	+
FluA H1N1 Pandemic	Negative	Negative	+
FluA H1N1 Pandemic	Positive	Positive	+
FluA H1N1 Pandemic	Positive	Positive	+
FluA H1N1 Seasonal	Positive	Positive	+
FluA H1N1 Seasonal	Positive	Positive	+
FluA H1N1 Seasonal	Positive	Positive	+
FluA H1N1 Seasonal	Negative	Negative	+
FluA H1N1 Pandemic	Negative	Negative	+
FluA H1N1 Pandemic	Negative	Negative	+
FluA H1N1 Seasonal	Negative	Negative	+
FluA H1N1 Seasonal	Negative	Negative	+
FluA H1N1 Seasonal	Negative	Negative	+
FluA H1N1 Seasonal	Negative	Negative	+
FluA H1N1 (novel)	Negative	Negative	+
FluA H1N1 (novel)	Negative	Negative	+
FluH3N2	Negative	Negative	+
FluH3N2	Negative	Negative	+
FluH3N2	Negative	Negative	+
FluH3N2	Negative	Negative	+
FluB	Negative	Negative	+
FluB	Negative	Negative	+
FluB	Negative	Negative	+
FluB	Negative	Negative	+
FluB	Positive	Positive	+
FluB	Positive	Positive	+
FluB	Positive	Positive	+
FluB	Negative	Negative	+
			100%

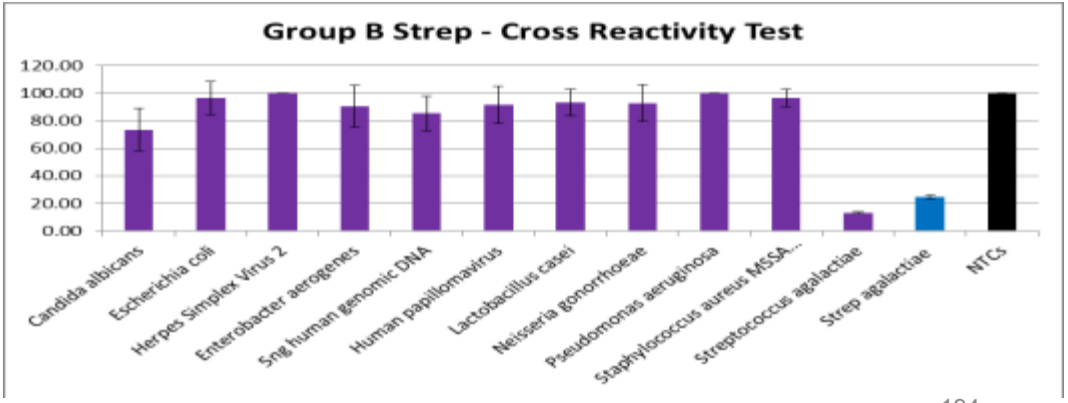
theranos

Strep B





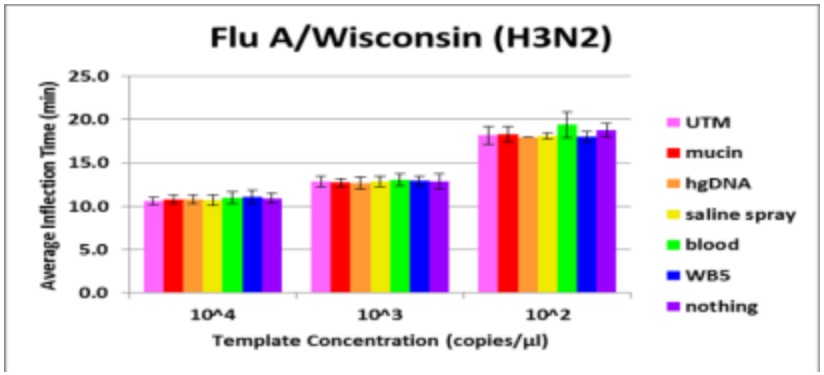
	Avg	StDev
10^3	12.65	0.81
10^2	15.95	0.63
10	19.71	2.53
NTC	36.55	2.29

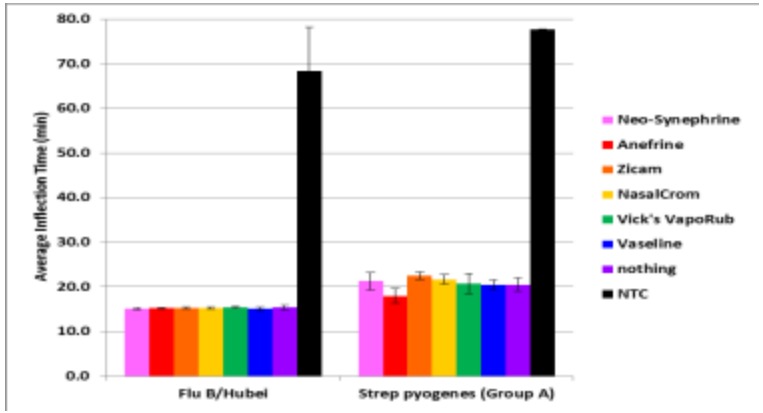


Panel B - STD	Final Copy Number	Average Inflection Time	Standard Deviation
Candida albicans	2.03X10^5	73.48	15.49
Escherichia coli	10^5	96.47	12.18
Herpes Simplex Virus 2	unknown (straight lysate)	100.00	0.00
Enterobacter aerogenes	10^5	90.34	15.13
5ng human genomic DNA	5ng	85.20	12.78
Human papillomavirus	unknown (straight lysate)	91.59	13.47
Lactobacillus casei	10^5	93.36	9.68
Neisseria gonorrhoeae	10^5	92.93	13.12
Pseudomonas aeruginosa	10^5	100.00	0.00
Staphylococcus aureus MSSA (DmecA)	10^5	96.56	6.53
Streptococcus agalactiae	10^5	13.12	0.50
Strep agalactiae	10^2	24.66	1.56
No Template Control	-	100.00	0.00

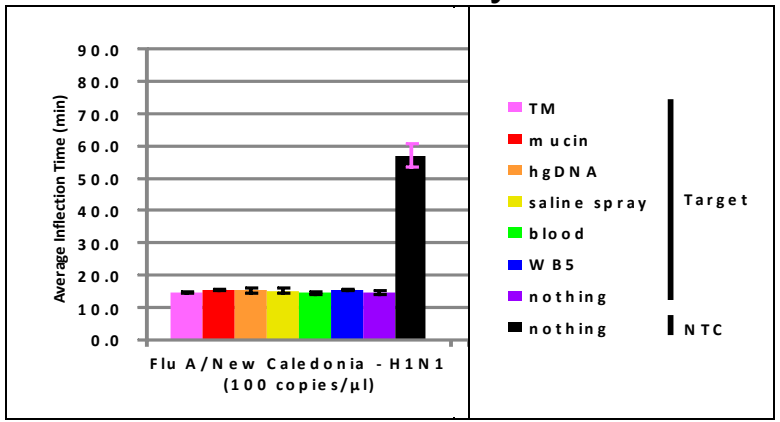
theranos

Testing Potential Interfering Substances





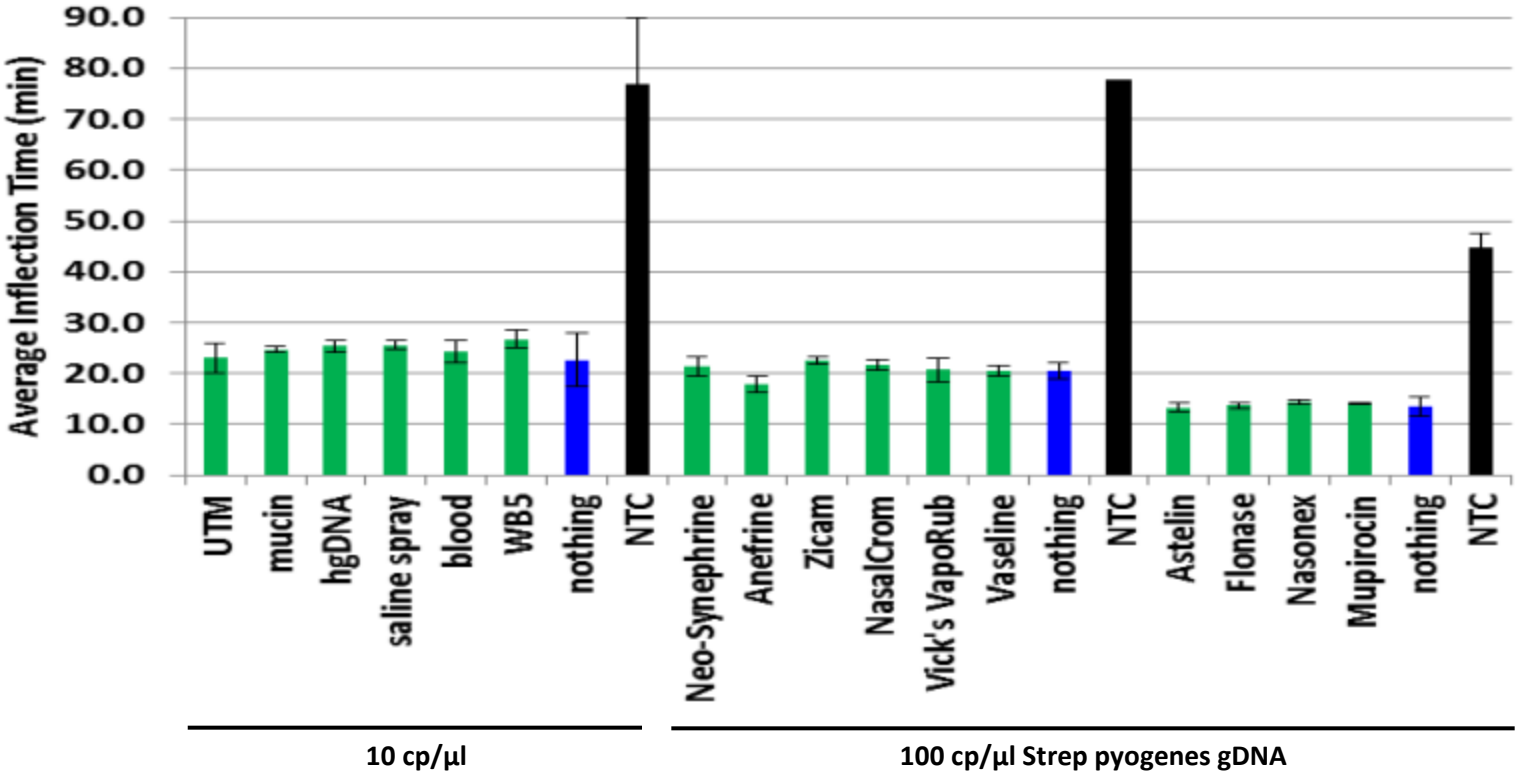
H1N1 Assay



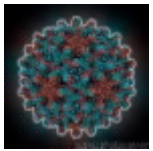
Potential carry over substances through sample prep does not inhibit the assays.

theranos

Testing Potential Interfering Substances - Strep A Assay



STD Panel

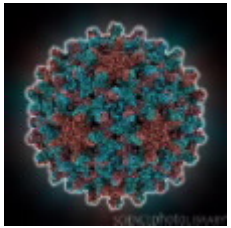


Hepatitis B Virus

Human immunodeficiency virus

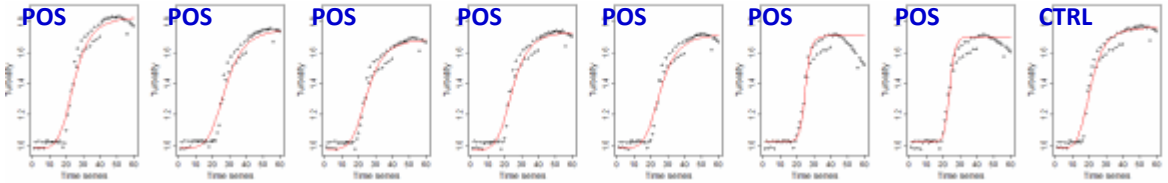
theranos

Hepatitis B Virus (3 assays with DNA targets)

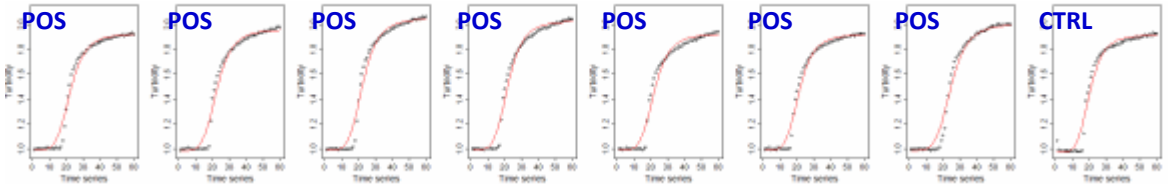


100 copies/uL target T137A1 DNA amplified by P137A1 multiplexed with P137B1 & C1 (mean: 24.8±1.2 min)

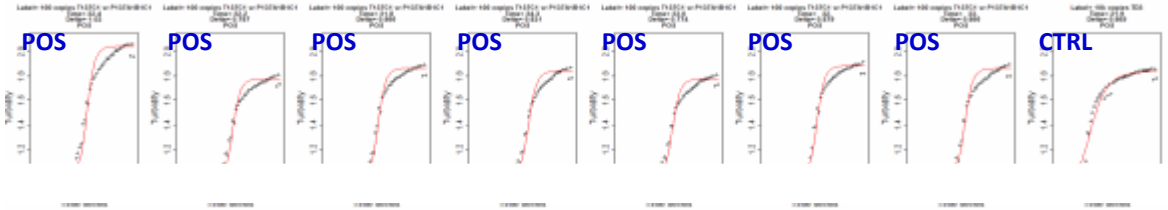
LoD is 100 copies/µl with a mean inflection time of 32.8±1.4 minutes.



100 copies/uL target T137B1 DNA amplified by P137B1 multiplexed with P137A1 & C1 (mean: 22.0±1.0 min)



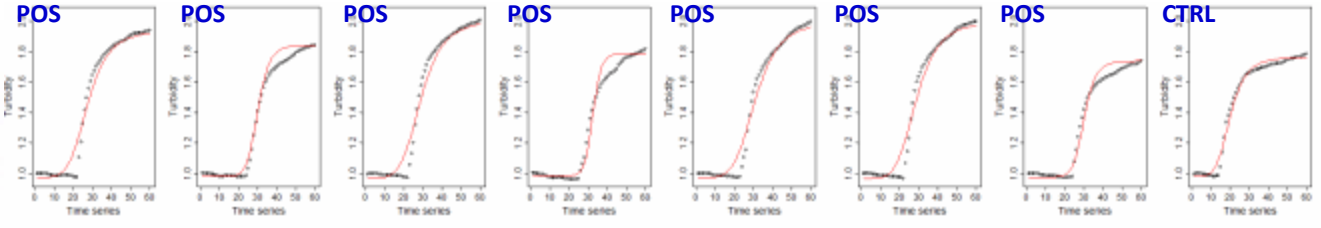
100 copies/uL target T137C1 DNA amplified by P137C1 multiplexed with P137A1 & B1 (mean: 32.8±1.4 min)



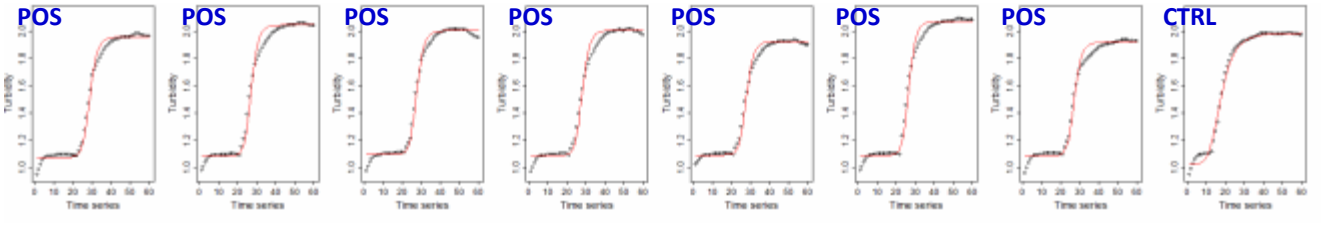
theranos

Human immunodeficiency virus (3 assays with RNA targets)

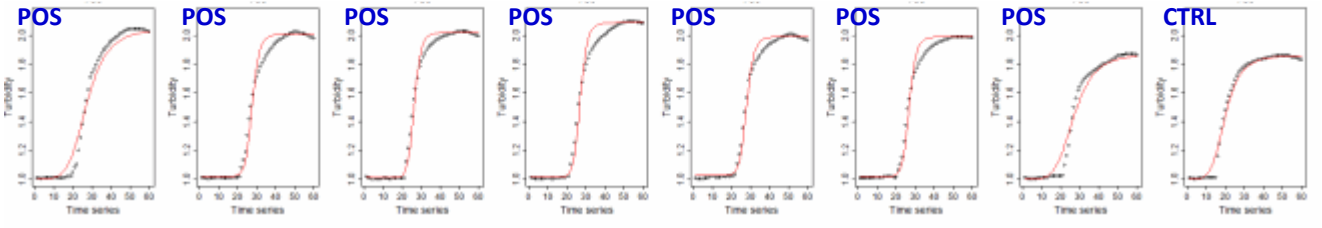
1,000 copies/µL target T140A1 RNA amplified by P140A1 primer set (mean: 29.8±1.2 min)



10,000 copies/µL target T140B1 RNA amplified by P140B1 primer set (mean: 27.5±0.7 min)



1,000 copies/µL target T140A1 RNA amplified by P140A1 primer set (mean: 27.3±0.7 min)

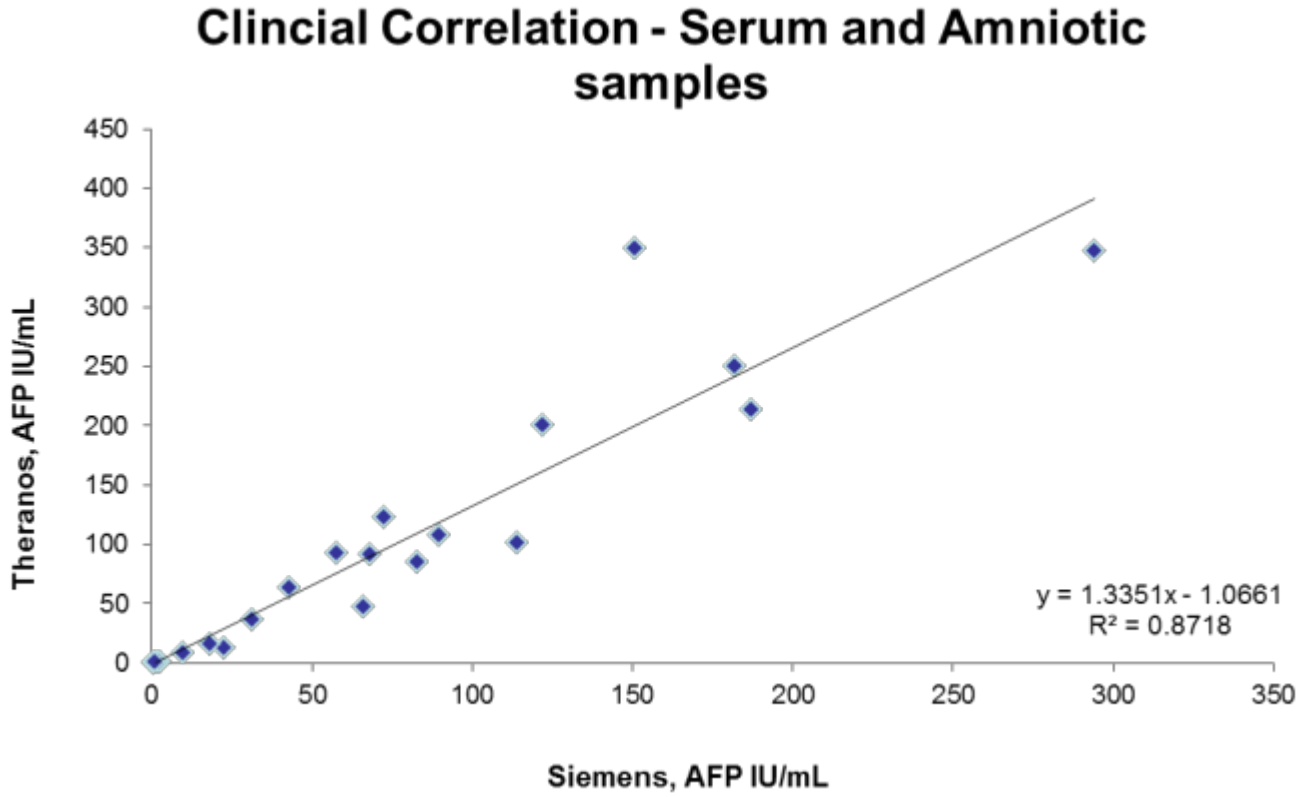


theranos

appendix

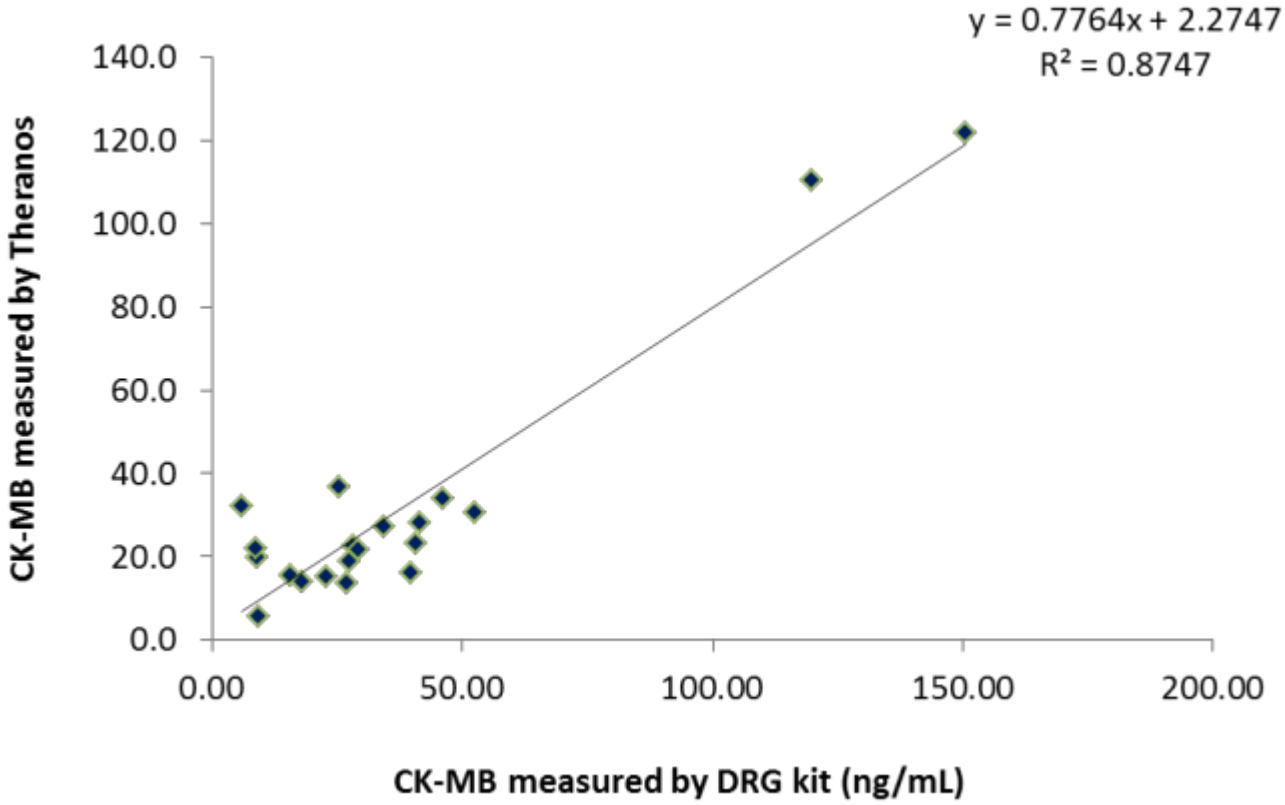
theranos

AFP



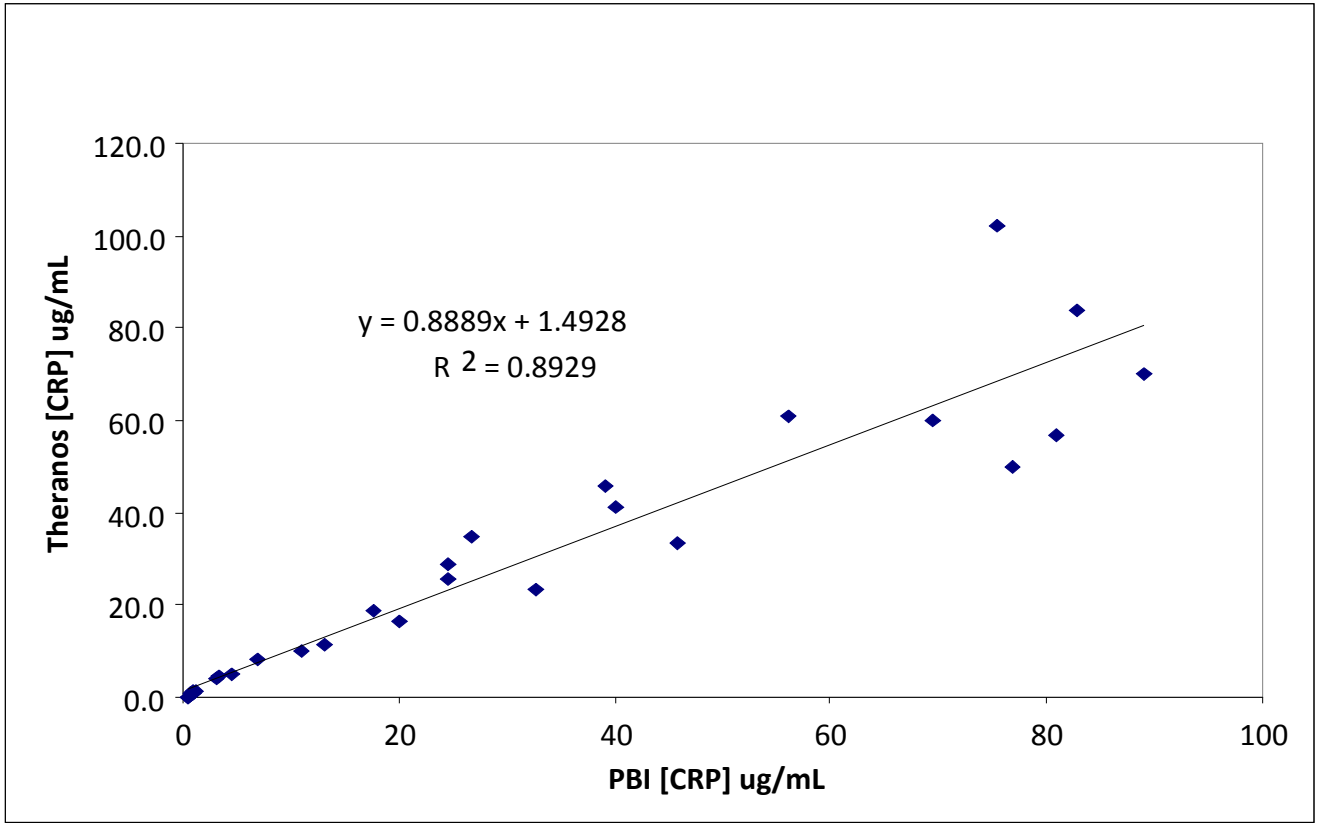
theranos

CK-MB



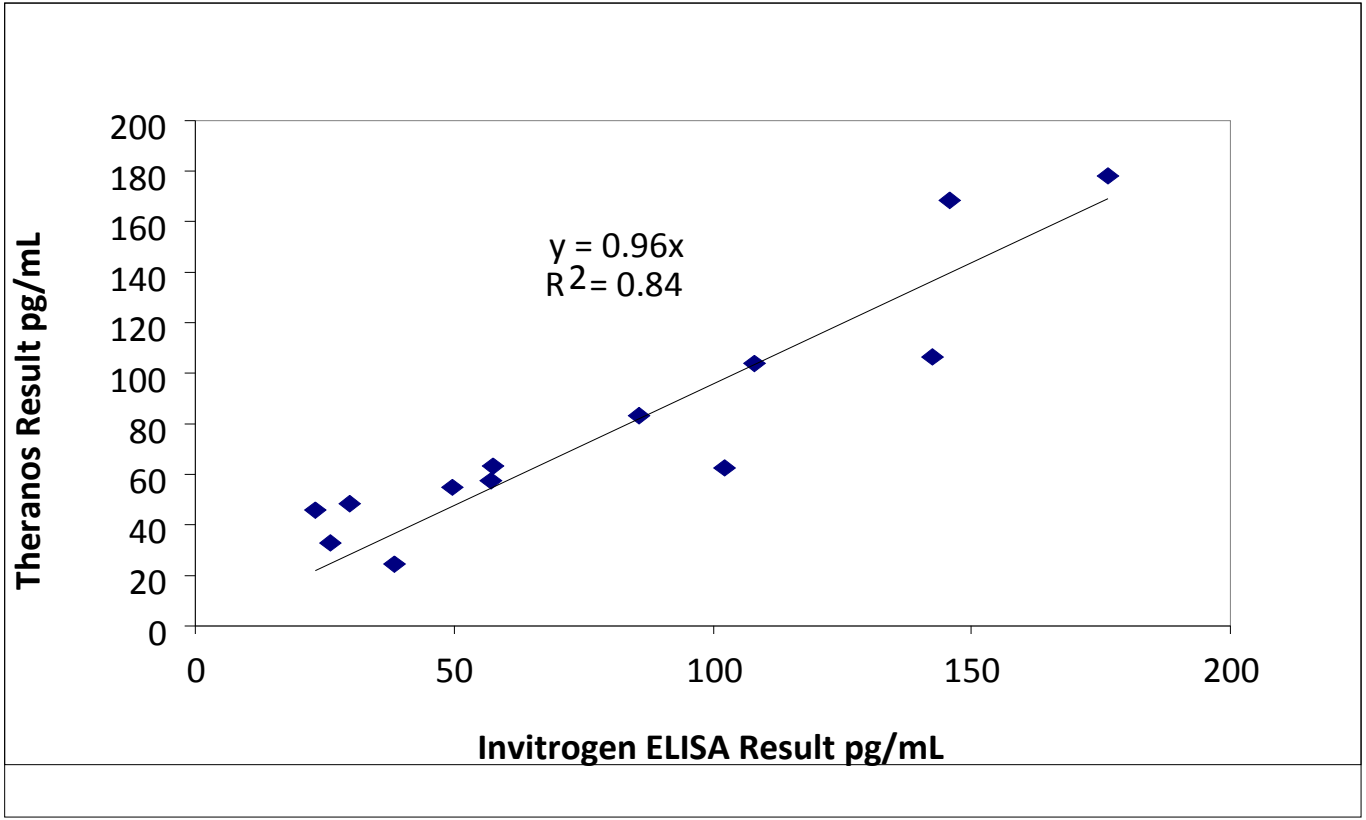
theranos

C-reactive protein



theranos

Estradiol



theranos

Estradiol - Precision

Analyzer	Signal (RLU)		Conc. pg/mL
	Mean RLU	Difference from Mean	
1	9287	-5	74
2	9523	-2	71
3	9991	2	66
4	10160	4	64
5	9397	-4	72
6	10383	7	62
7	10275	5	63
8	10351	6	62
9	8432	-14	84
10	8334	-15	86
11	9041	-7	77
12	9457	-3	72
13	10687	10	59
14	10984	13	57
15	10704	10	59
16	10823	11	58
17	10125	4	65
18	10222	5	64
19	10168	4	64
20	10452	7	61
21	8832	-9	79
22	8365	-14	85
23	8425	-14	84
24	9562	-2	71

Inter-Analyzer Concentration CVs

Mean Conc. pg/mL	StDev	CV%	% Recovery
69	9	13	92

Inter-Analyzer Signal CVs

Mean RLU	StDev	CV%
9749	835	9

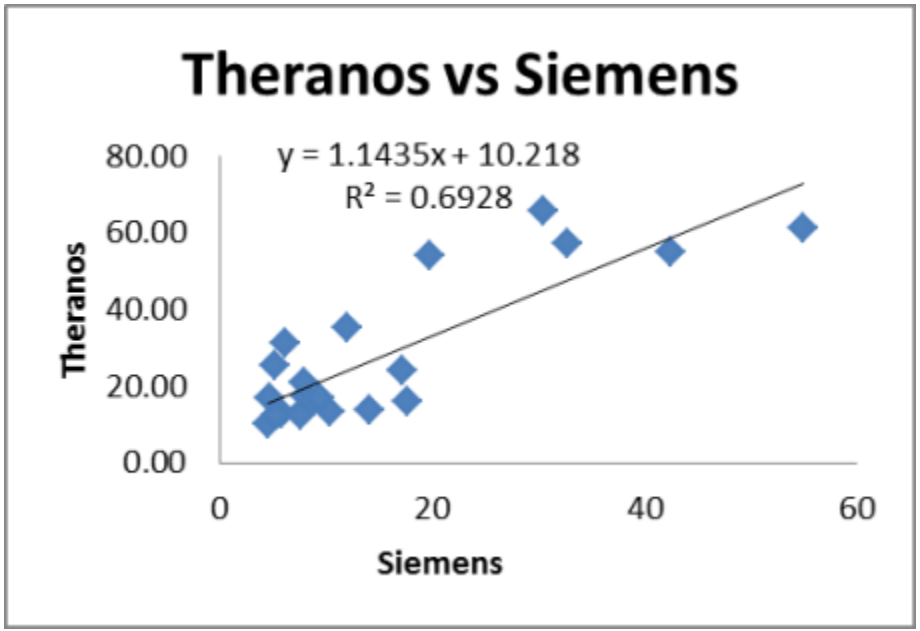
theranos

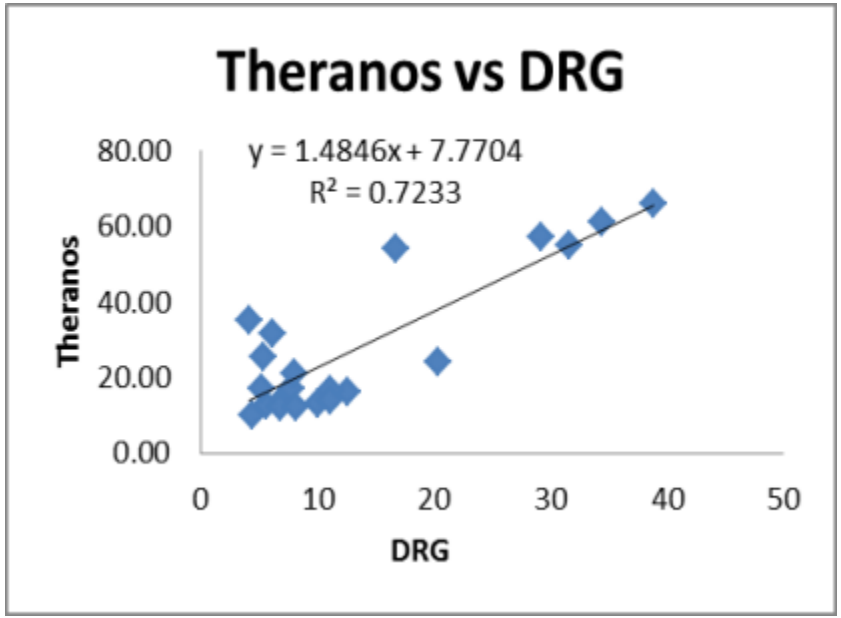
Estradiol – Precision

QC Levels for 3 Day Precision and Accuracy

Nominal [Estradiol] pg/mL	Cartridge	Recovered [Estradiol] pg/mL					
		Day 1	Day 2	Day 3	Mean Conc.	CV %	% Recovery
478.50	1	522	481	448	455	8	95
	2	402	426	485			
	3	440	444	444			
92.63	1	114	104	72	92	14	99
	2	104	91	85			
	3	90	81	87			
45.38	1	36	37	37	41	11	90
	2	40	38	44			
	3	44	48	44			

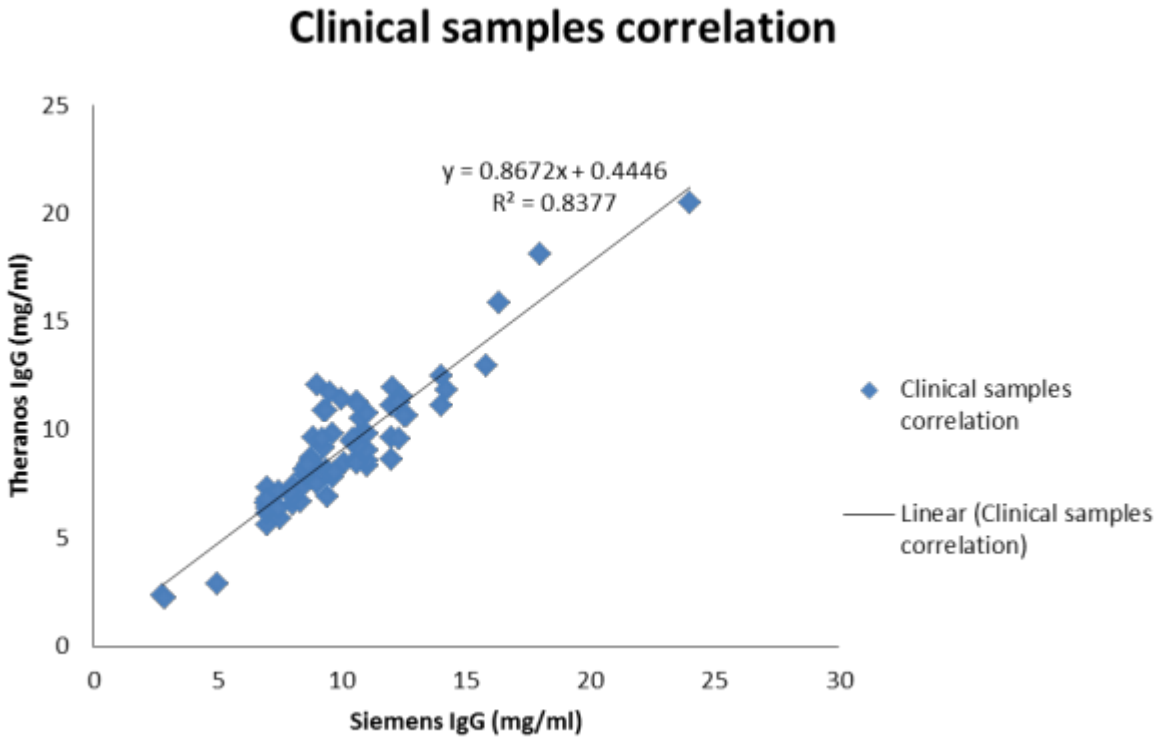
Unconjugated Estriol





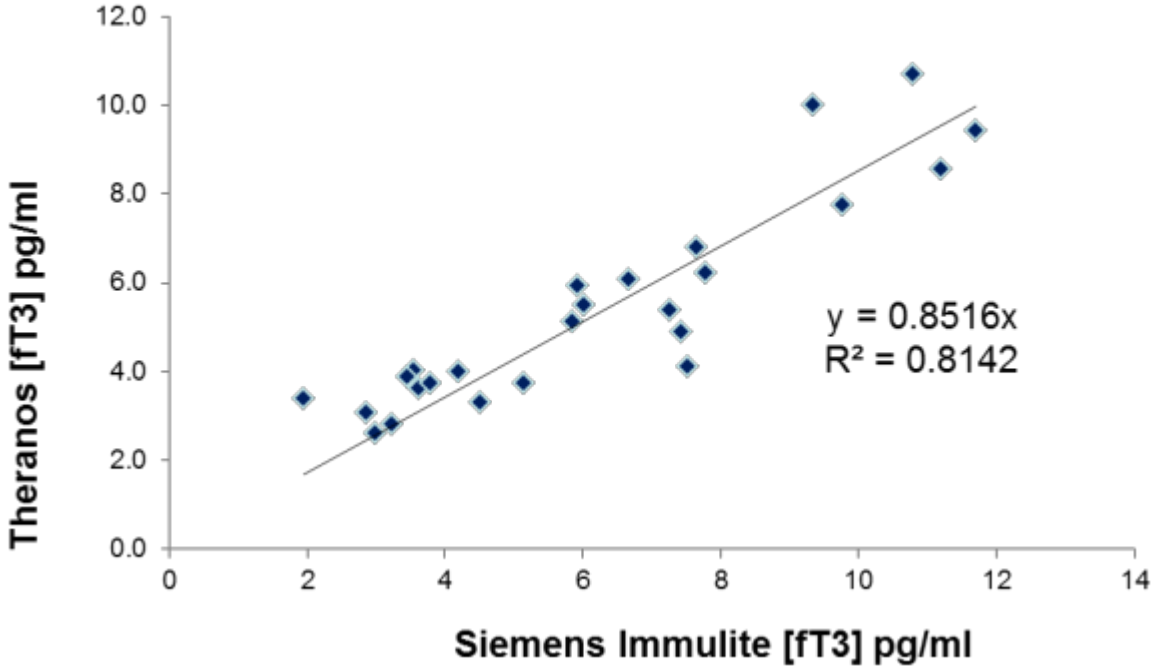
theranos

Human IgG



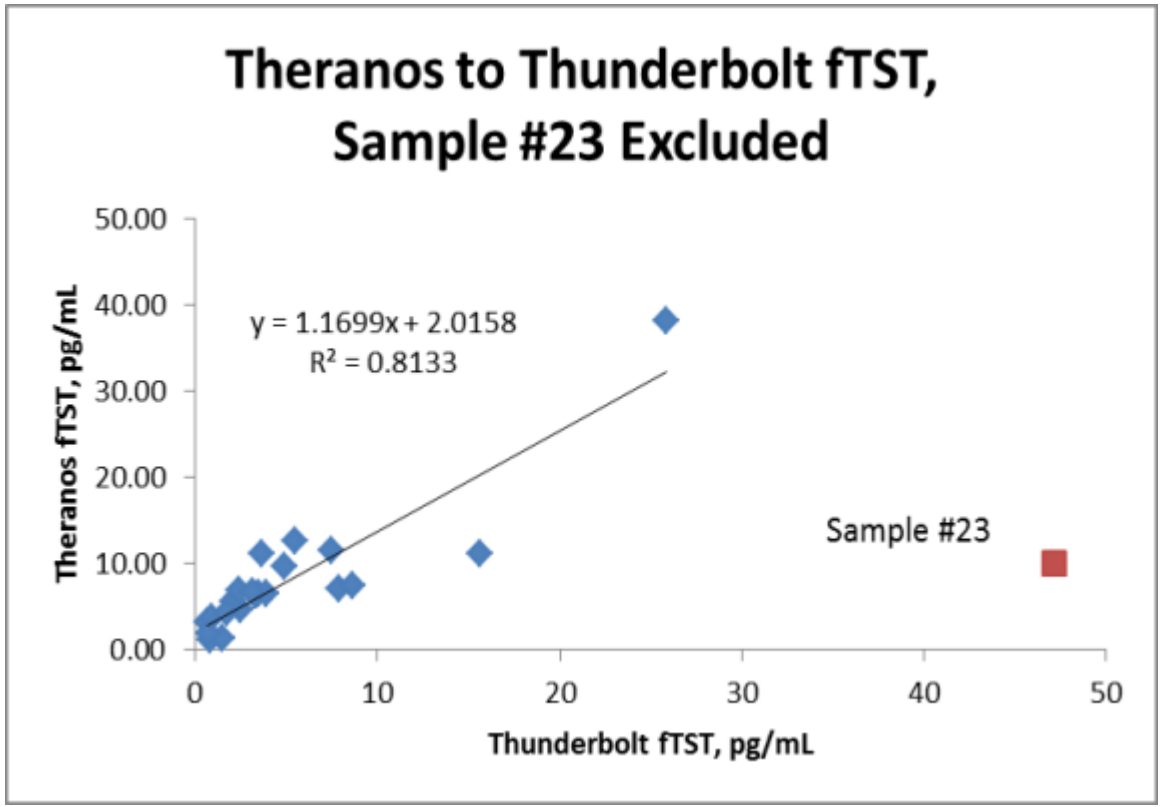
theranos

Free T3



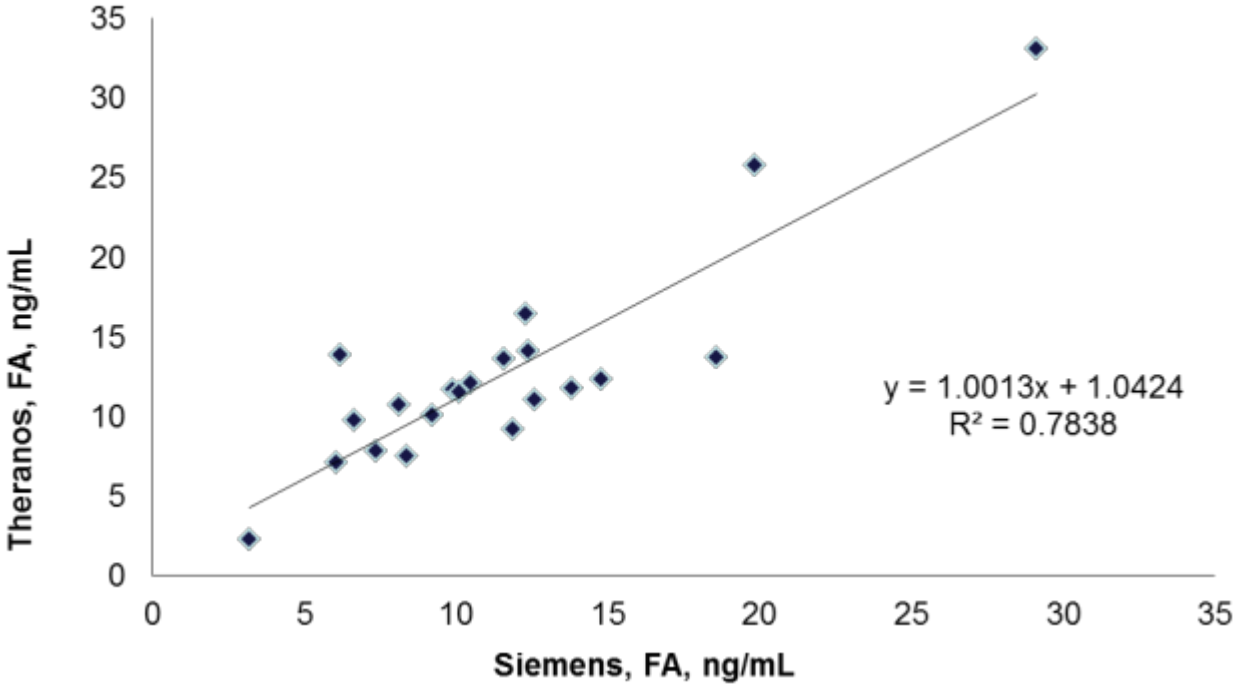
theranos

Free Testosterone

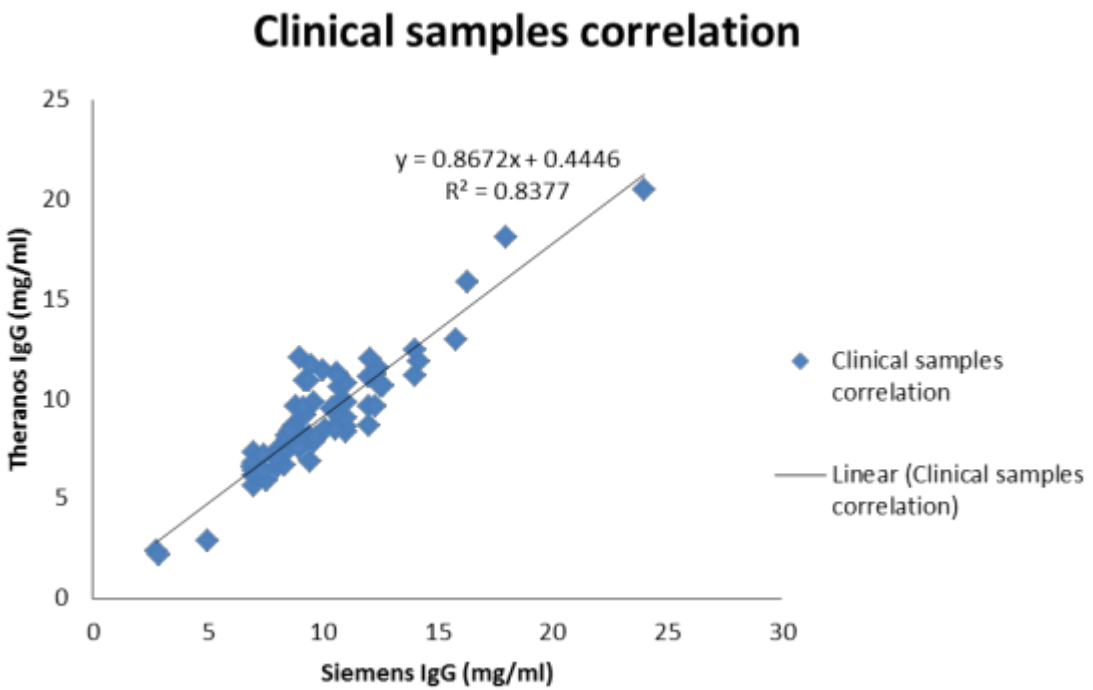


theranos

Folic Acid

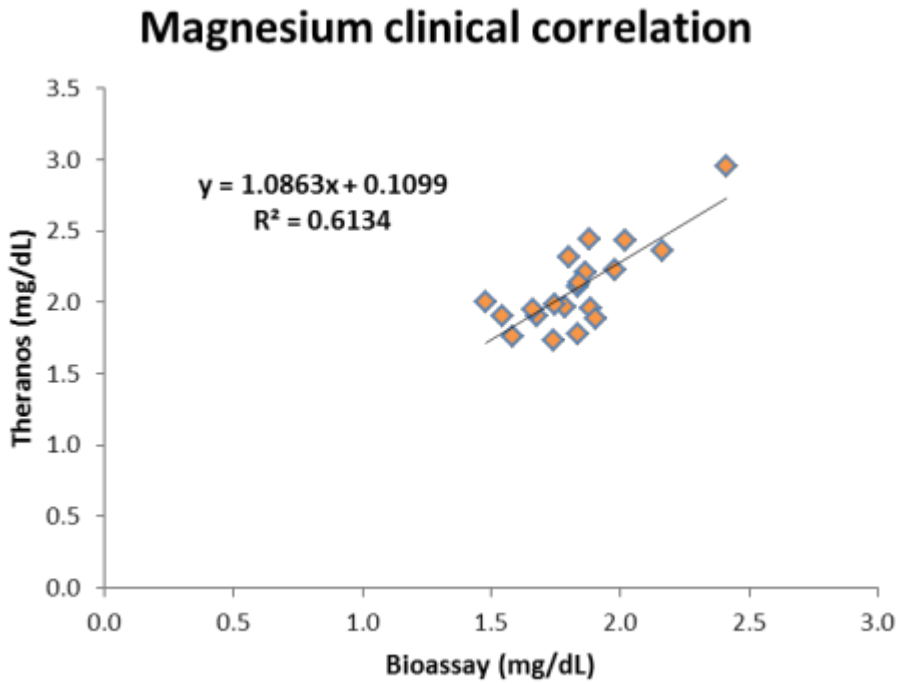

Theranos, FA, ng/mL
Siemens, FA, ng/mL
y = 1.0013x + 1.0424
R² = 0.7838
0
5
10
15
20
25
30
35

Human IgG



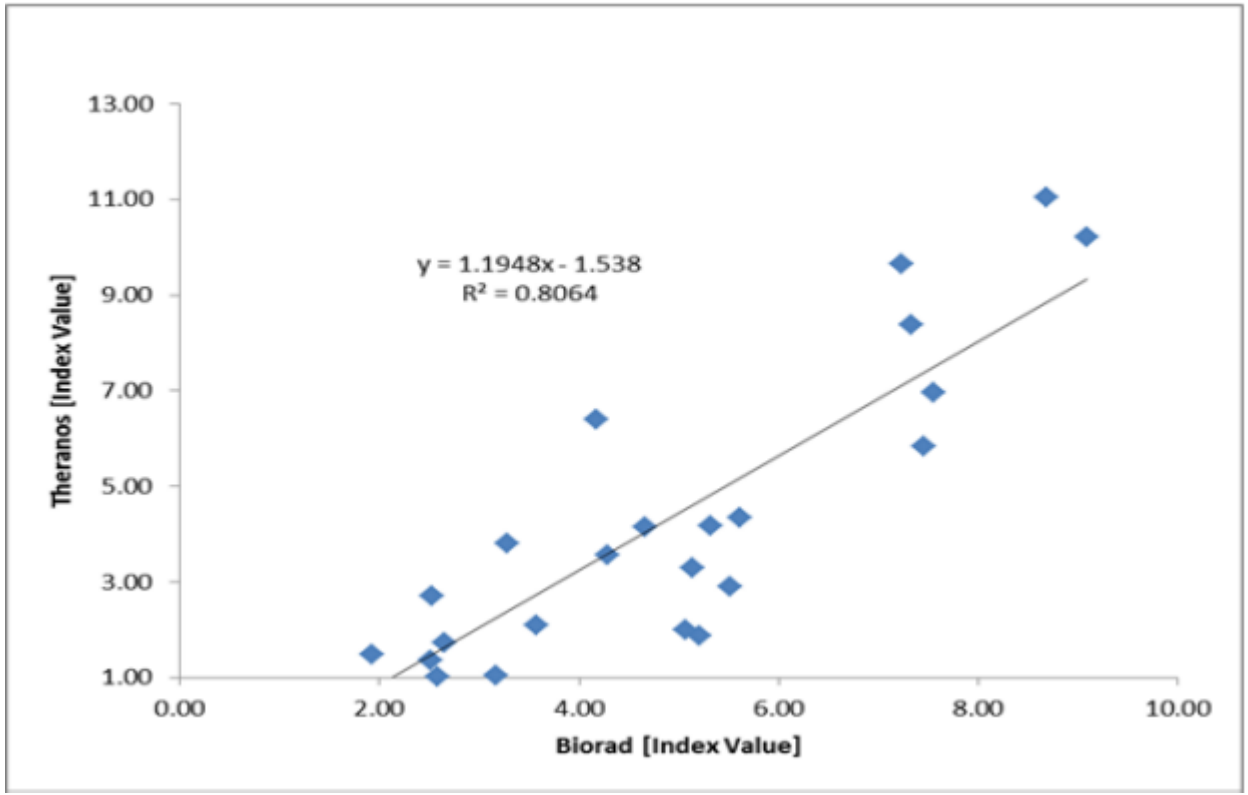
theranos

Magnesium



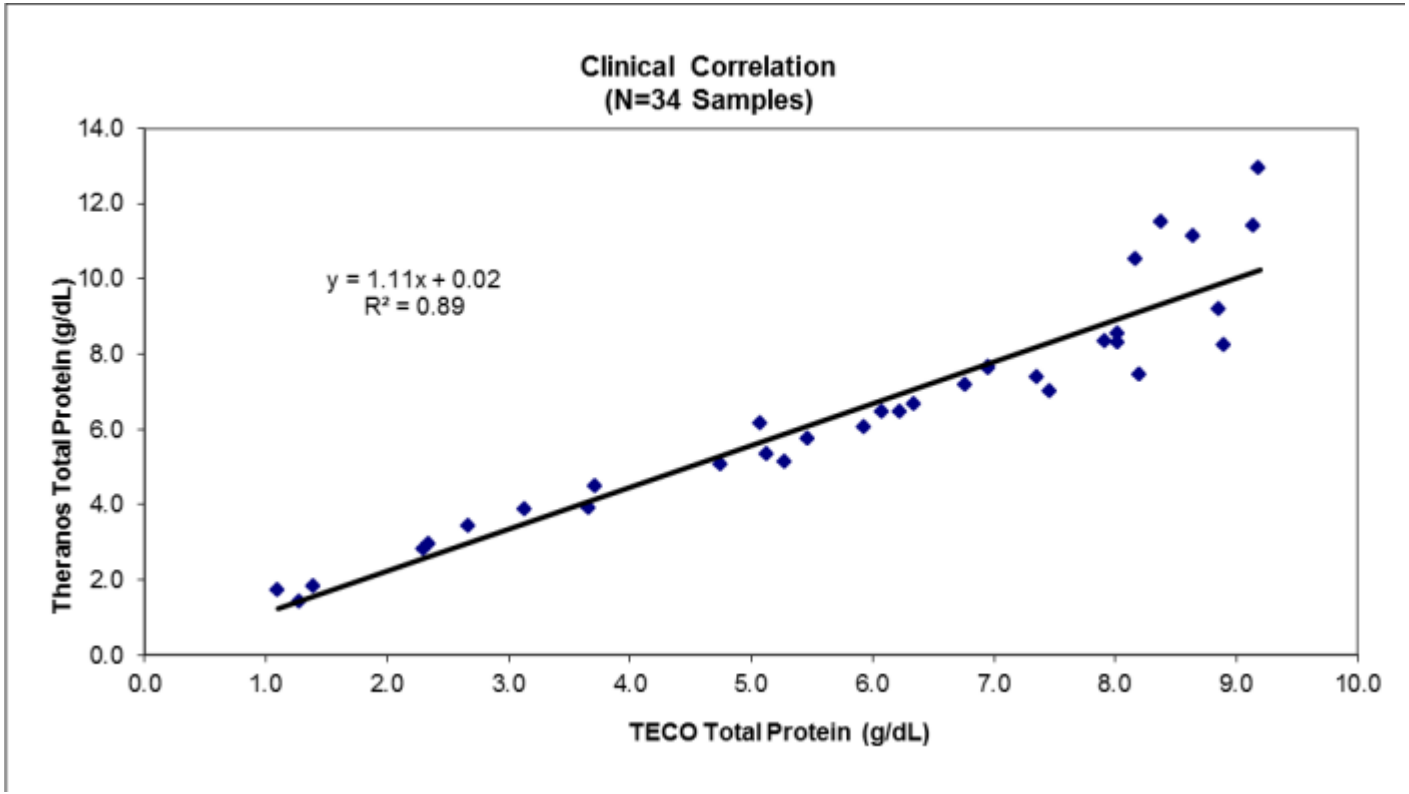
theranos

Mumps antibody



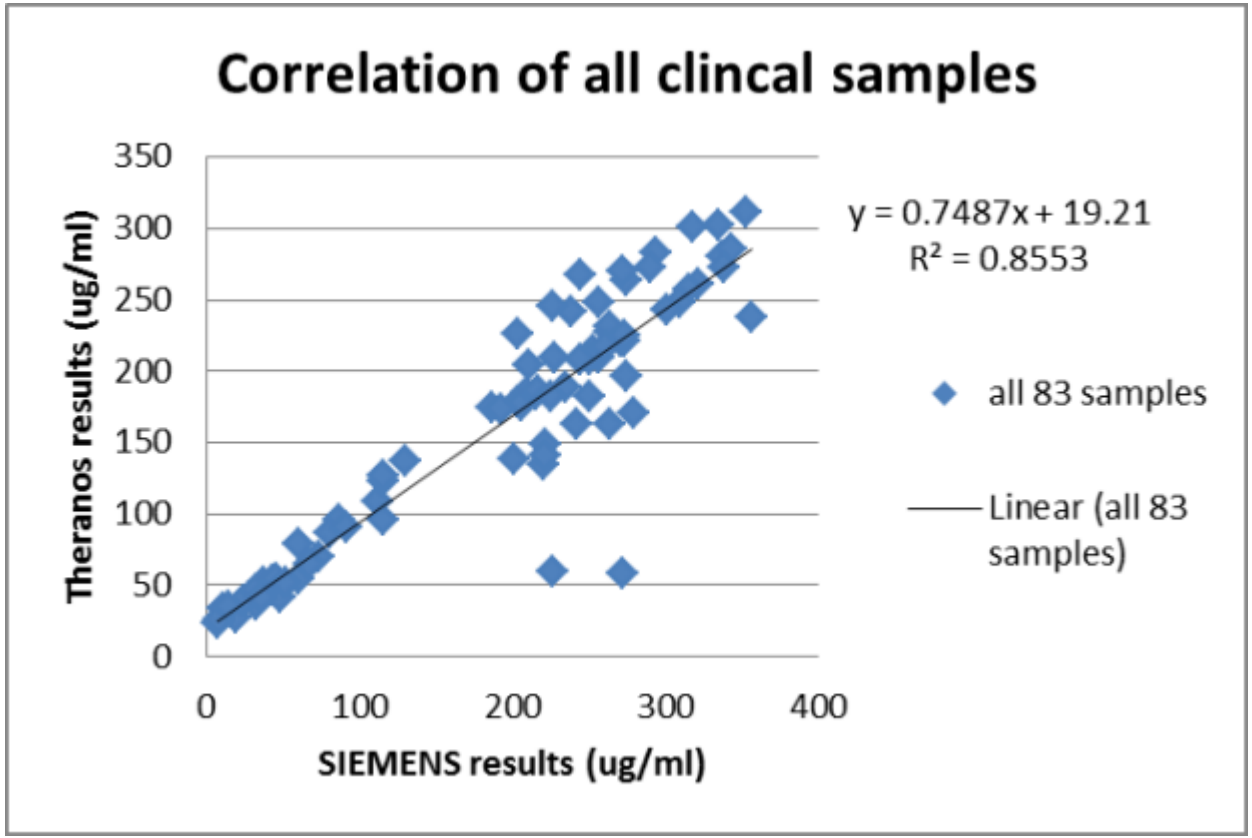
theranos

Total Protein



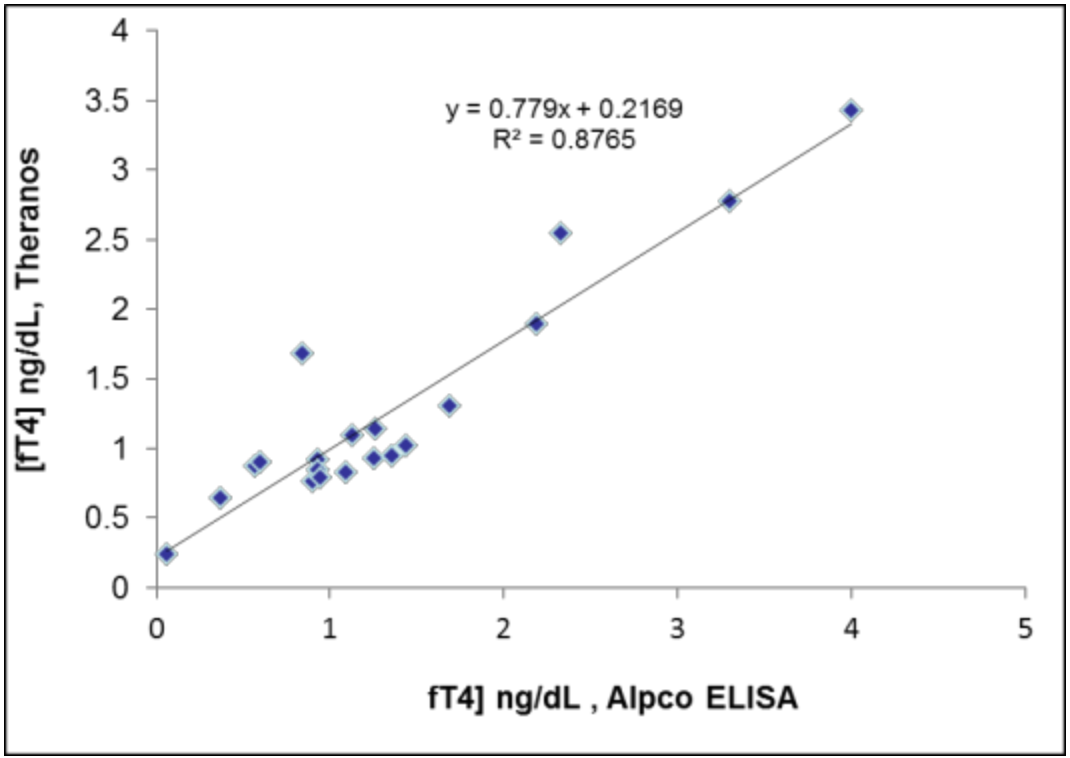
theranos

Prealbumin



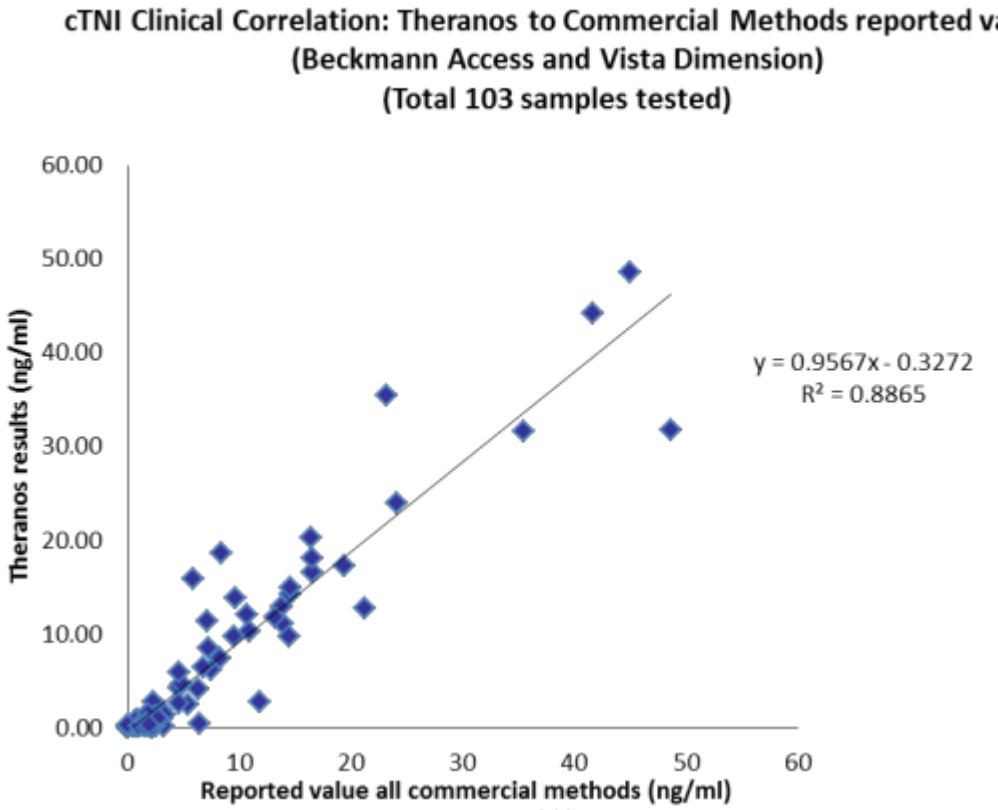
theranos

Free Thyroxine (FT4)



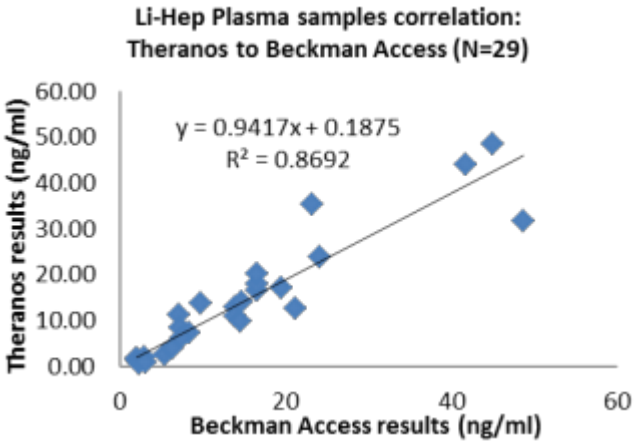
theranos

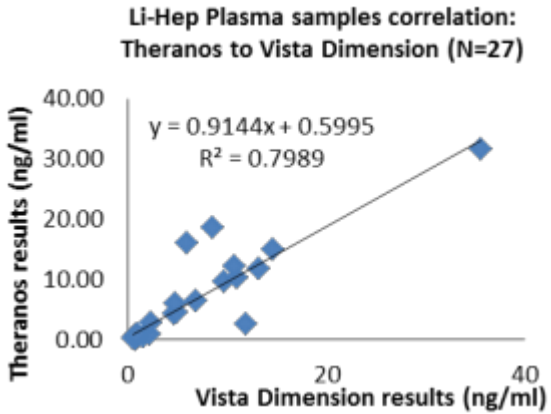
Troponin I (cTNI)

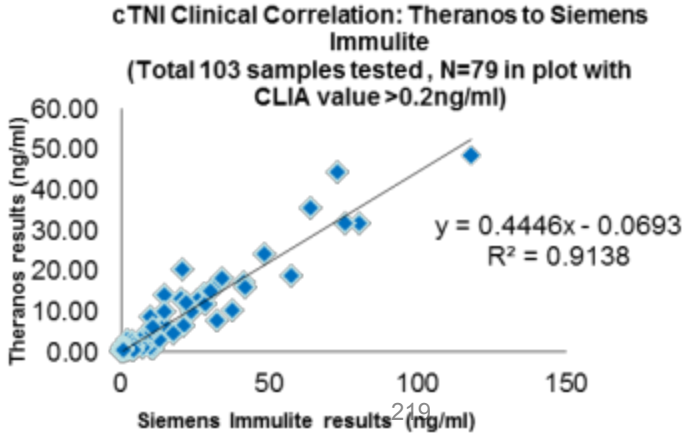


theranos

Theranos cTNI Assay: Clinical Sample Correlation to Individual Commercial Methods

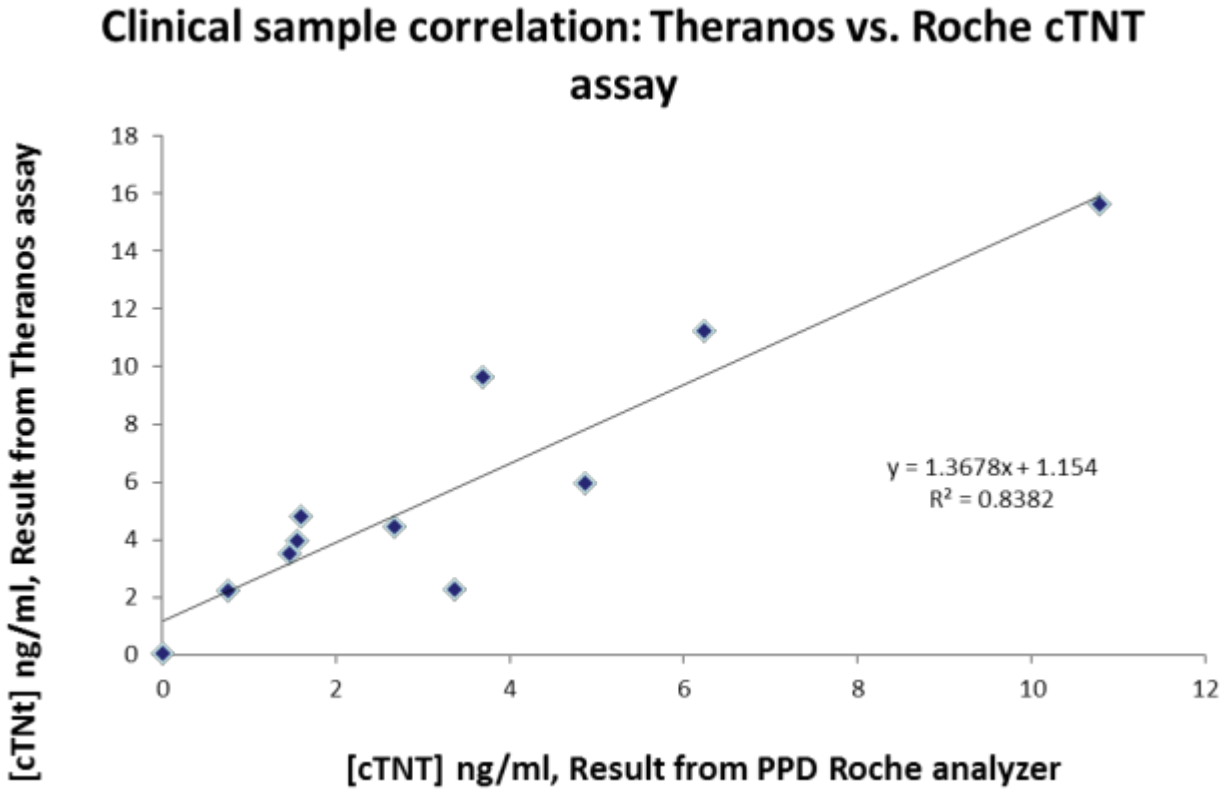






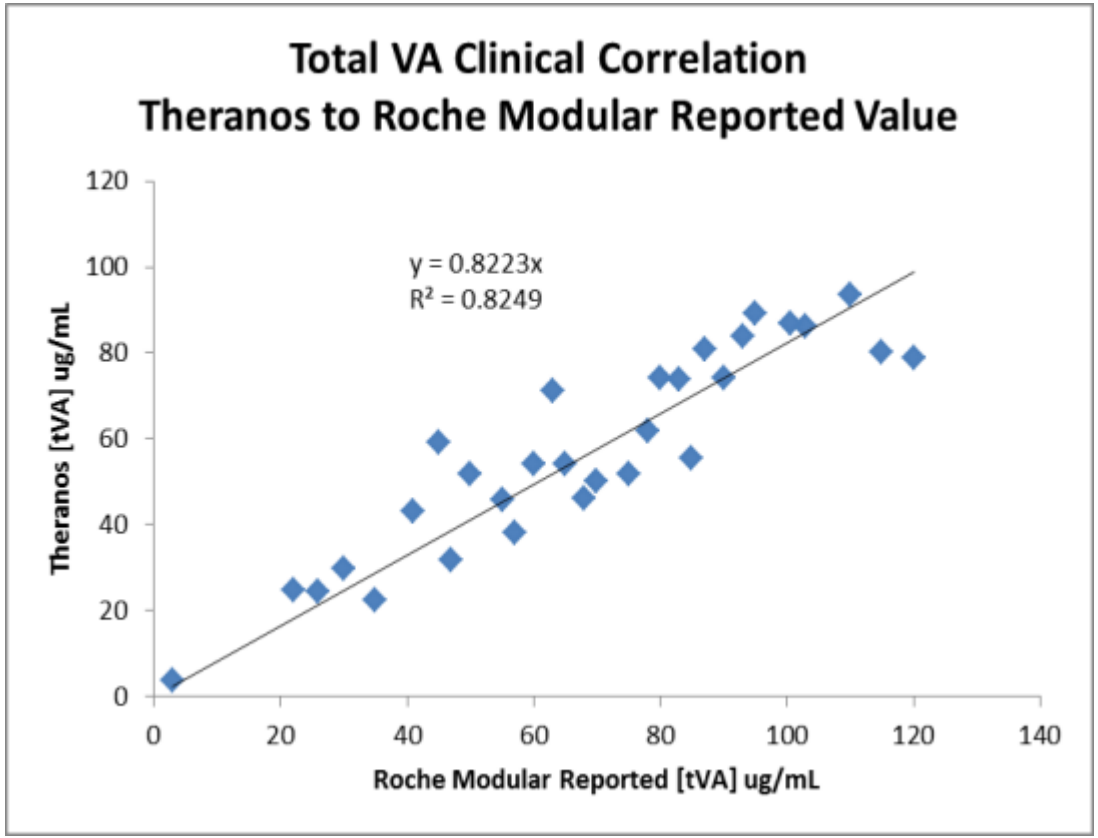
theranos

Troponin T



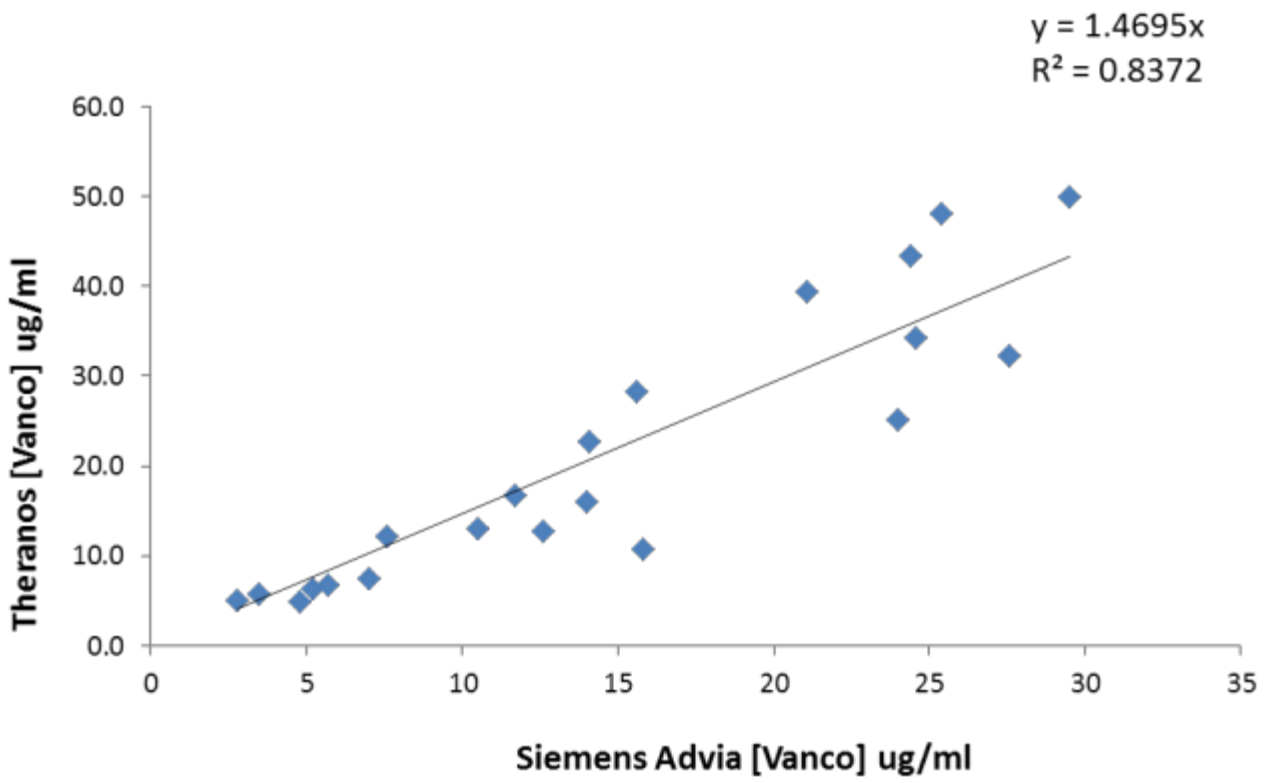
theranos

Total Valproic Acid (VA)



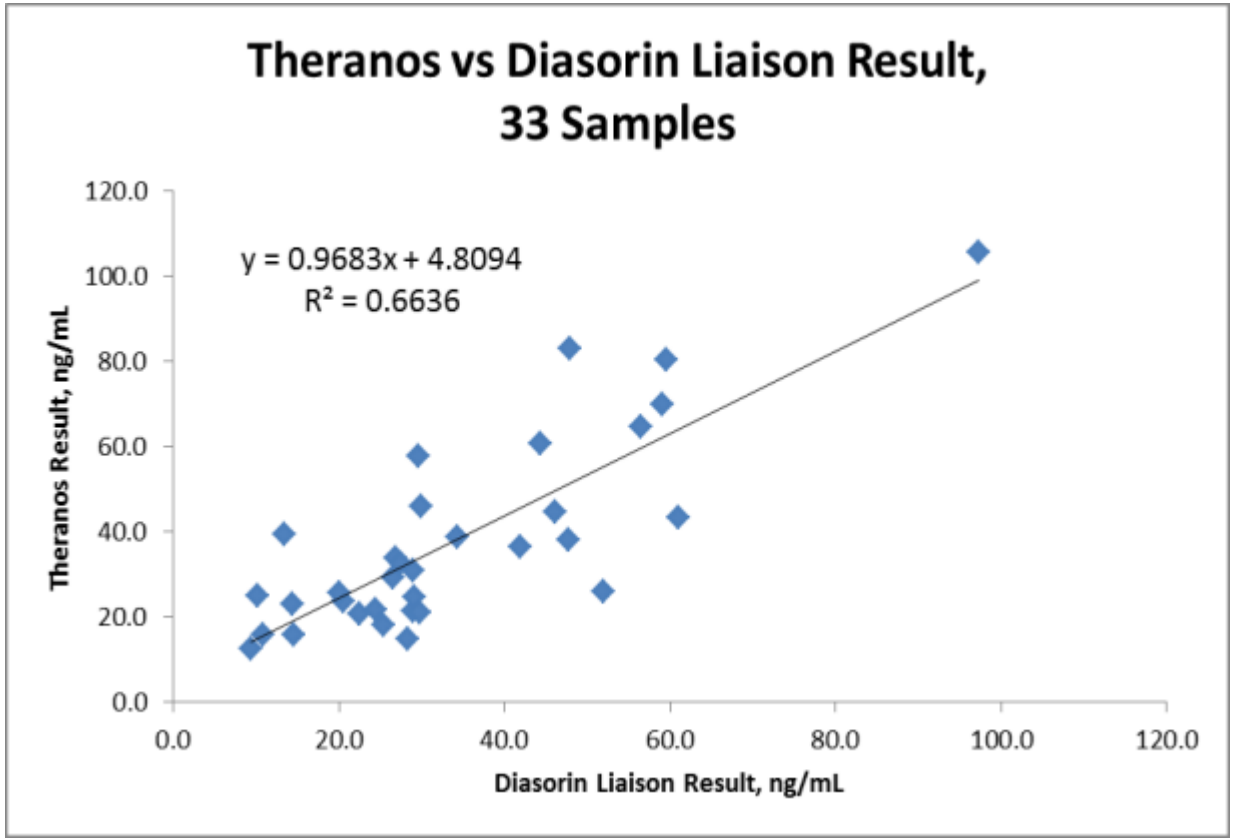
theranos

Vancomycin



theranos

25-OH Vitamin D



theranos