LUNATIC

UNCHAINED LABS

Get your quant on

Lunatic makes batch quantification of protein, DNA and RNA a no-brainer. All you need is 2 µL and 10 minutes to measure up to 96 samples. Run them straight-up, even at high concentrations, without ever diluting. Lunatic gets biologics and genomics UV/Vis quantification on the money every time. Just drop, load and read.

2 µL volume

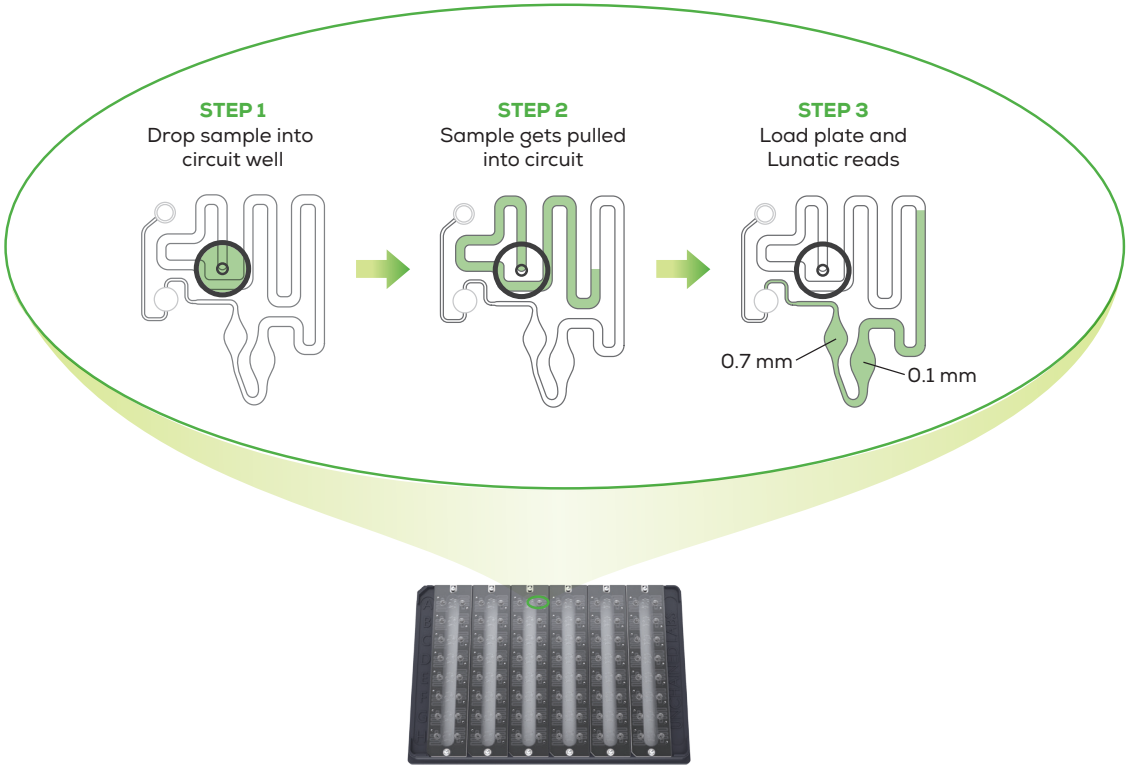
96 samples

10 minutes

SBS plate format

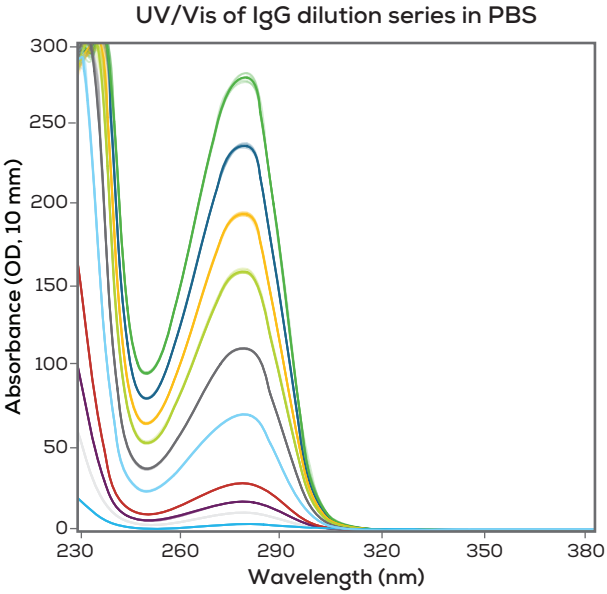
No B.S. workflow

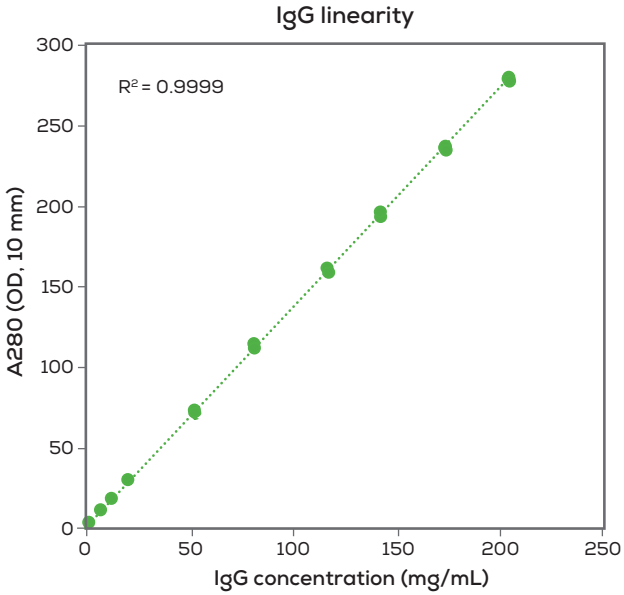
Skip the sample prep, cleaning and worrying about cross-contamination or evaporation – your samples will sit tight for up to 2 hours. Our Lunatic plate runs 96 samples in 10 minutes. Each microfluidic circuit has two fixed pathlengths built-in to cover a wide dynamic range of 0.03–275 OD. All you do is load up your samples and get kick-ass results.



Max out your biologic

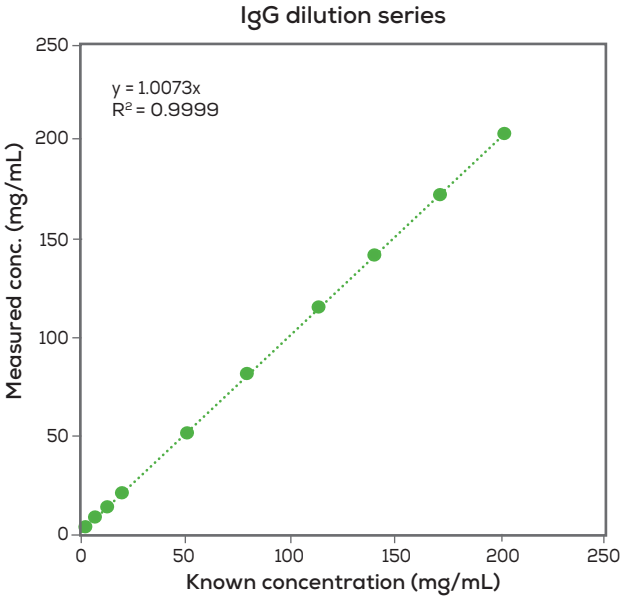
Lunatic is the only system out there that can measure biologics at high-throughput and high concentration. It's got dynamic range that covers from 0.02 mg/mL to 200 mg/mL (mAb), so run any protein without ever having to dilute again. Stop the madness of running just one protein at a time – and cleaning up afterwards.





Ridiculously good data

Get spot-on precision within 1% and accuracy within 2%. Using two fixed pathlengths, Lunatic gets you jaw-dropping data at both low and high protein concentrations and nails the expected concentrations every time. With the smallest sample size, the highest throughput and crazy accurate results, Lunatic is hands down the best tool out there for protein quantification.

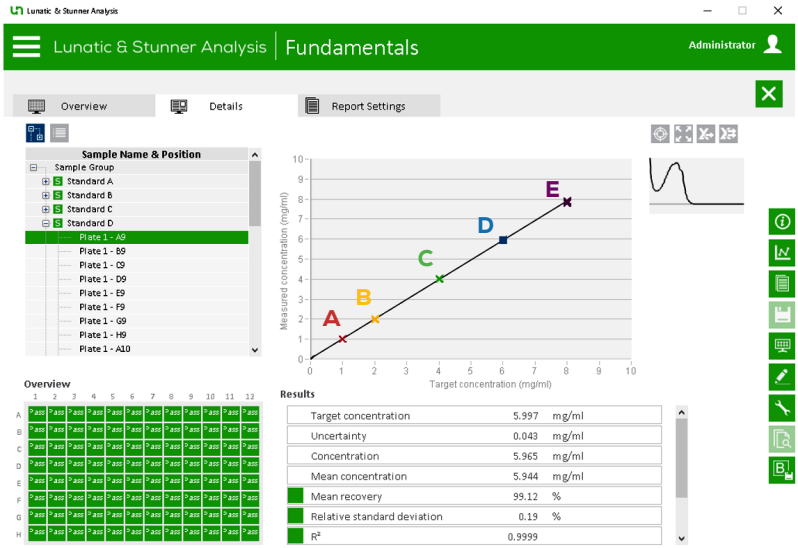


Known Conc. (mg/mL)	Average Conc. (mg/mL)	CV (%)
201.4	201.7	0.7%
169.9	171.1	0.7%
139.4	140.7	0.4%
113.1	115.0	0.6%
79.4	80.7	0.2%
50.2	51.2	0.2%
19.9	20.3	0.3%
12.1	12.2	0.2%
7.21	7.28	0.2%
2.35	2.37	0.2%

Accuracy you can show off

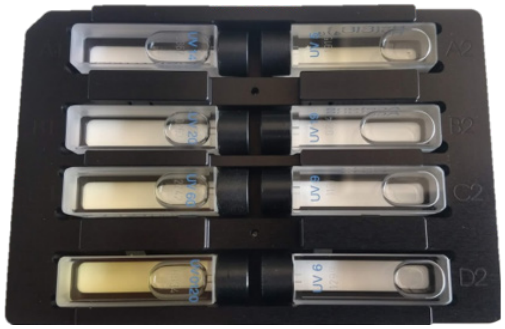
Lunatic has shocking accuracy and wants to prove it. Using the Fundamentals tryptophan standards, the accuracy, precision and linearity of the instrument can be proven at any time – at the protein-relevant 280 nm wavelength and OD range of 20-225. Be confident about every sample with data that leaves no room for doubt.

The Fundamentals
Certified tryptophan standards
OD range 20-225

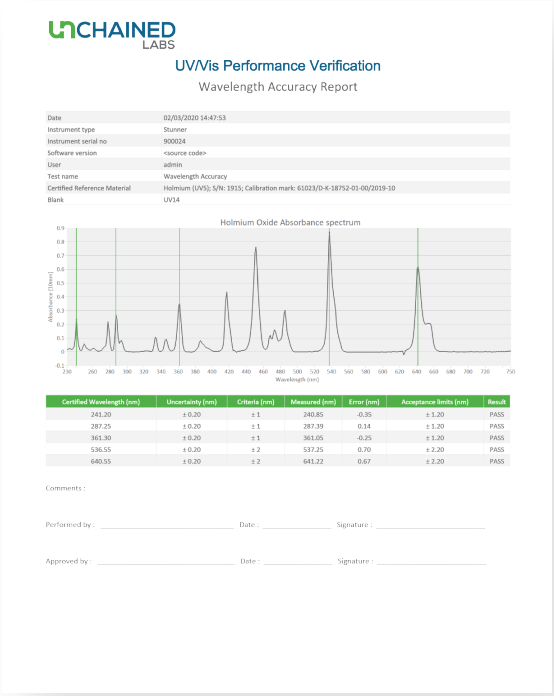


Downstream ready

Smash through the USP & Ph. Eur. UV/Vis requirements for absorbance accuracy, precision, linearity, wavelength accuracy, stray light and resolution with performance verification measurements of independently certified NIST standards. Lunatic is ready when you are to get validated and make the move into QC.



Performance verification plate
Holds certified pharmacopeia standards for UV/Vis verification



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UV/Vis Performance Verification

Wavelength Accuracy Report

Date	02/03/2020 14:47:53
Instrument type	Stunner
Instrument serial no	900024
Software version	<source code>
User	admin
Test name	Wavelength Accuracy
Certified Reference Material	Holmium (UVS); S/N: 1915; Calibration mark: 61023/D-K-18752-01-00/2019-10
Blank	UV14

Holmium Oxide Absorbance spectrum

Certified Wavelength (nm)	Uncertainty (nm)	Criteria (nm)	Measured (nm)	Error (nm)	Acceptance limits (nm)	Result
241.20	± 0.20	± 1	240.85	-0.35	± 1.20	PASS
287.25	± 0.20	± 1	287.39	0.14	± 1.20	PASS
361.30	± 0.20	± 1	361.05	-0.25	± 1.20	PASS
536.55	± 0.20	± 2	537.25	0.70	± 2.20	PASS
640.55	± 0.20	± 2	641.22	0.67	± 2.20	PASS

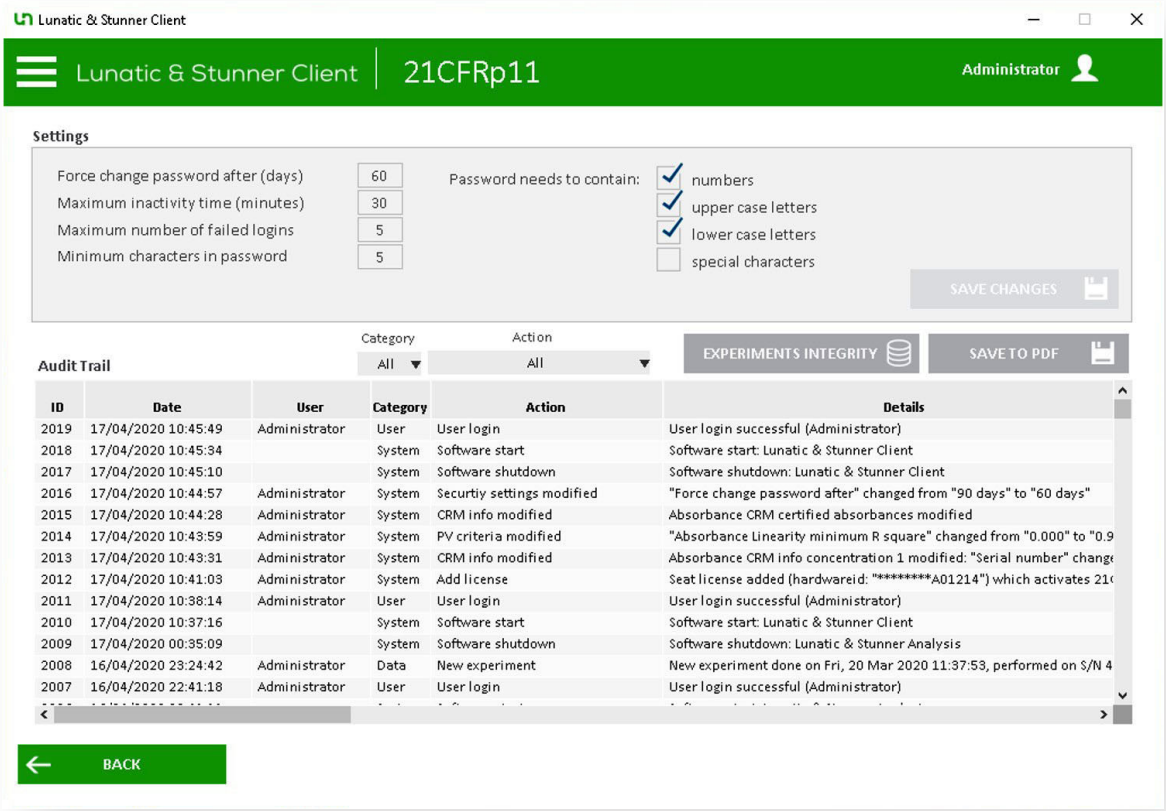
Comments :

Performed by : _____ Date : _____ Signature : _____

Approved by : _____ Date : _____ Signature : _____

Put it on lockdown

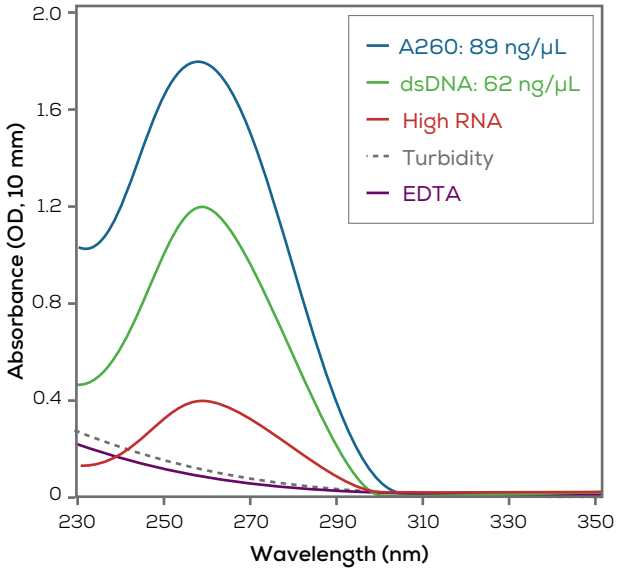
GLP labs don't sweat it. Lunatic's software hooks labs up with 21 CFR Part 11 compliant features. We're talking password protection, electronic signatures, full audit trail – the whole package.



Dig up your genomic's dirt

DNA and RNA samples can be freaking messy. Lunatic analysis software lets you see annoying impurities that classic A260 measurements alone mistake as your DNA or RNA. Ditch the time-sucking, dye-based prep and know right away if your samples are good to go.

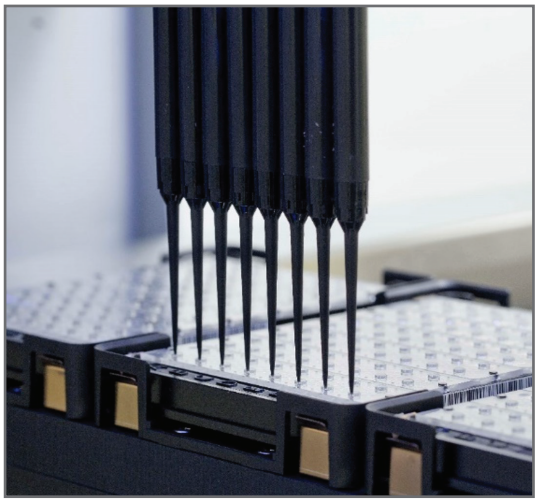
DNA by DNA (Tissue/blood) Unmix app



Set it and forget it

Lunatic talks to robots. Hook it up with any liquid handler system and run your measurements completely hands-off with our API setup and keep more of your precious sample for the rest of your workflow.

Automated sample loading



Specifications

Lunatic instrument specifications		
Dimensions	37 cm W x 46 cm D x 33 cm H; 21 kg	
Operating voltage	24 VDC, 30 W (max)	
Connection	USB, TCP/IP (Service, SiLA)	
Light source	Xenon flash lamp	
Detectors	UV/Vis polychromatic spectrophotometer	
Approval	CE, FCC, CSA	
Wavelength range	230–750 nm	
Wavelength accuracy	≤400 nm: ±1 nm; ≥400 nm: ±2 nm	
Spectral resolution	Better than 2 nm (toluene in hexane)	
Absorbance precision (1 cm quartz cuvette)	<1 OD: ±0.005 OD st dev	1–2 OD: ±0.5% CV
Absorbance accuracy (1 cm quartz cuvette)	<1 OD: ±0.01 OD	1–2 OD: ±1%
Lunatic plate specifications	**High Lunatic Plate**	**Lunatic Plate**
Application area	High concentration samples, typically proteins	Low concentration samples, typically nucleic acids
Sample retention time	Up to 2 hours	Up to 2 hours
Recommended sample volume	2 µL	2 µL
Pathlength(s)	0.1 mm & 0.7 mm path	0.5 mm path
Measurement time for full plate	~10 minutes	~5 minutes
Measurement range: OD 10 mm ng/µL dsDNA mg/mL ave protein mix	 0.03–275 OD 10 mm 1.5–13750 ng/µL 0.03–275 mg/mL	 0.03–40 OD 10 mm 1.5–2000 ng/µL 0.03–40 mg/mL
Absorbance precision (10 mm pathlength)	<1 OD: ±0.01 OD st dev 1–200 OD: ±1% CV	<1 OD: ±0.01 OD st dev >1 OD: ±1.5% CV
Absorbance accuracy (10 mm pathlength)	<1 OD: ±0.02 OD 1–200 OD: ±2%	<1 OD: ±0.02 OD >1 OD: ±4%
Dimensions	8.55 cm W x 12.8 cm D x 1.21 cm H	
Samples per plate	96 (12 x 8 microplate format)	

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