LUNATIC

Genomics Quantification

UNCHAINED LABS

Get your quant on

Lunatic makes batch quantification of DNA and RNA a no-brainer. All you need is 2 µL and 10 minutes to measure up to 96 samples. Load up the tiniest volume and read low concentrations in one step - no standard curves, no dyes. Or take advantage of the wide dynamic range to read high concentrations straight-up, without dilutions. Lunatic gets UV/Vis quantification of nucleic acids on the money every time. Just drop, load and read.

2 µL volume

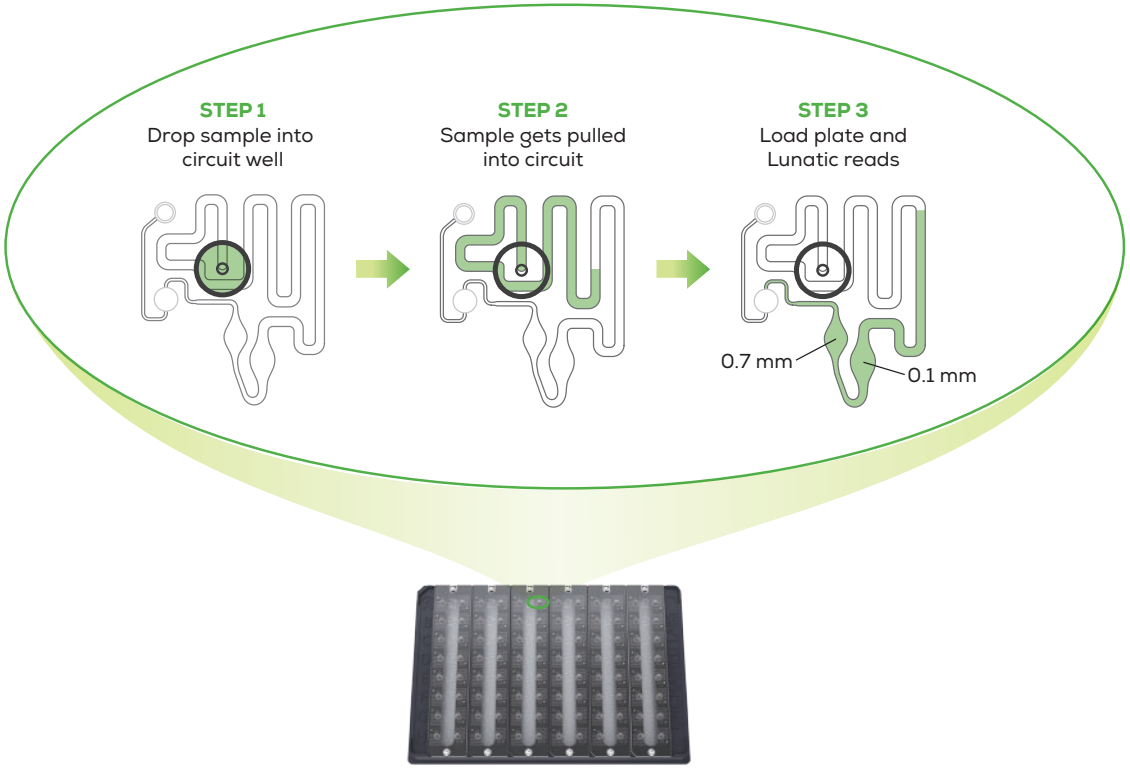
96 samples

10 minutes

SBS plate format

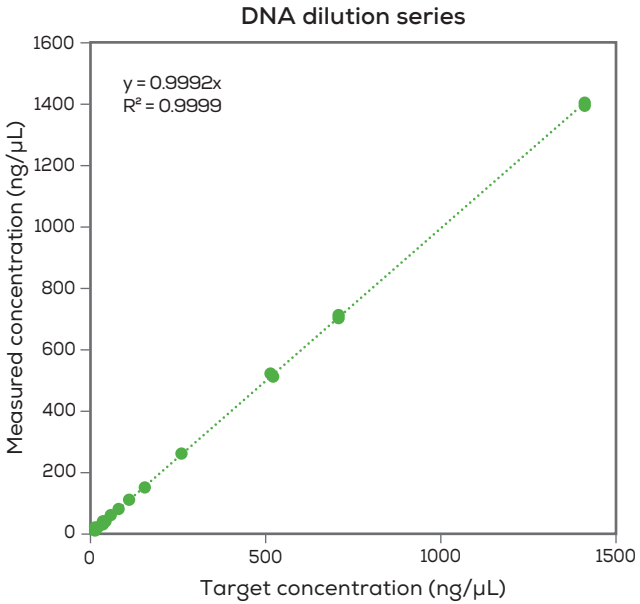
No B.S. workflow

Skip the sample prep, cleaning and worrying about cross-contamination or evaporation – your samples will sit tight for up to 2 hours. Our High 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.



Reliable no matter what

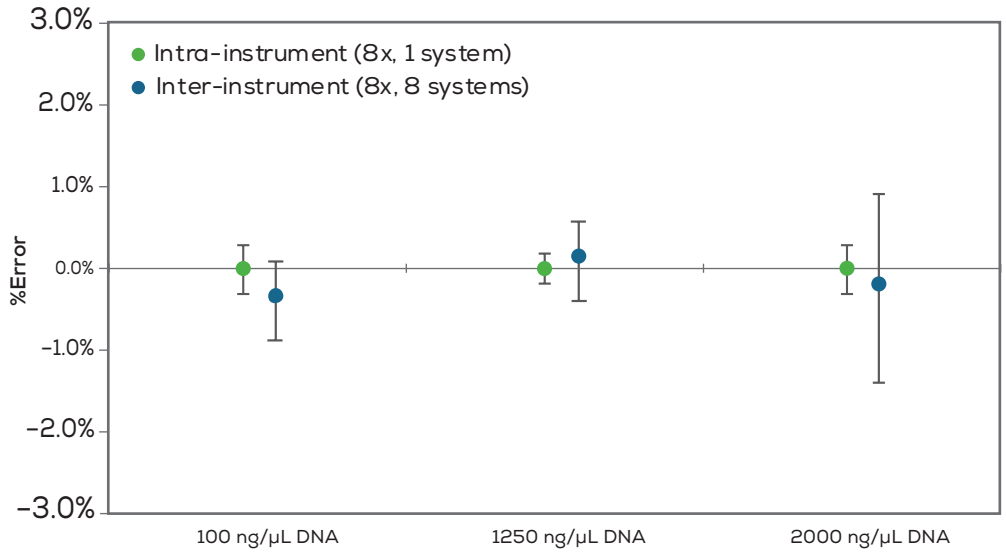
Get spot-on accuracy within 2% and precision within 1%. Using two fixed pathlengths, Lunatic delivers jaw-dropping data at both high and low nucleic acid concentrations. Ditch instruments with moving optics for all the accuracy and precision of fixed UV/Vis pathlengths.



Target Conc. (ng/µL)	Avg Conc. (ng/µL)	Mean Recovery (%)	CV (%)
1400	1395.7	99.7	0.67
700	702.2	100.3	0.28
500	504.4	100.9	0.68
250	250.9	100.4	0.22
140	139.8	99.9	0.41
100	100.5	100.5	0.91
70	68.9	98.4	0.07
50	49.4	98.8	0.67
30	29.9	99.7	0.43
25	24.5	98.0	0.70

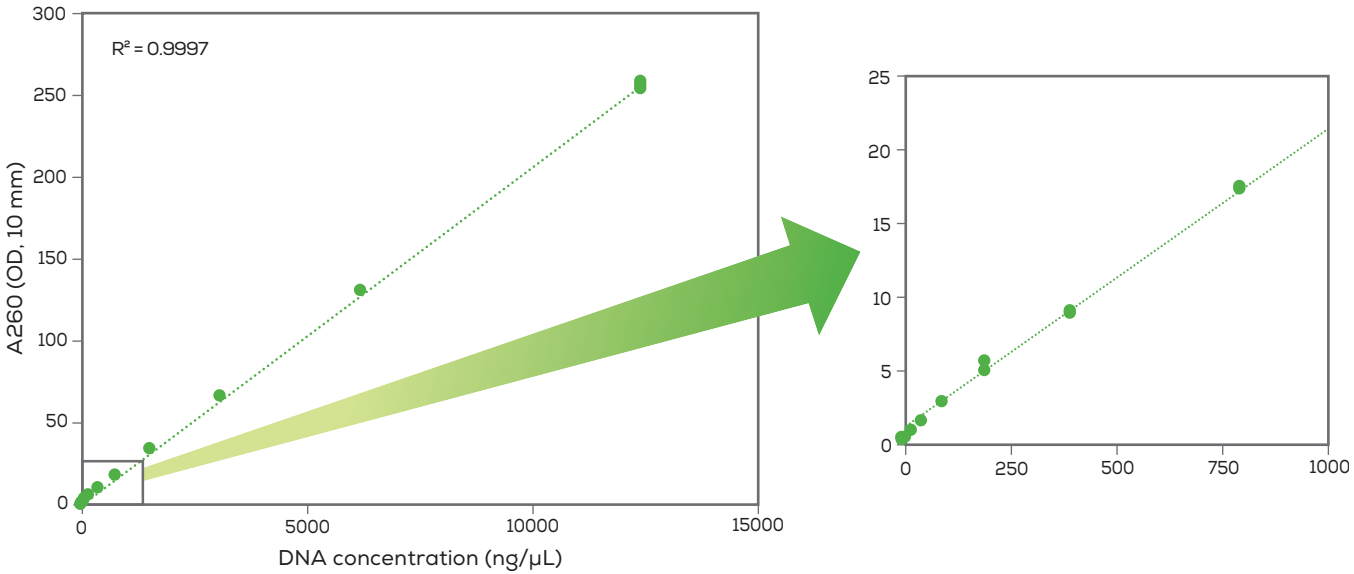
Always on the money

Don't lose sleep over instrument-to-instrument or lab-to-lab variation. Lunatic loves repeating itself, so standardizing your methods across all labs is easy-peasy. With boatloads of samples at multiple locations, the last thing you need is to struggle with validating the same workflow over and over again.



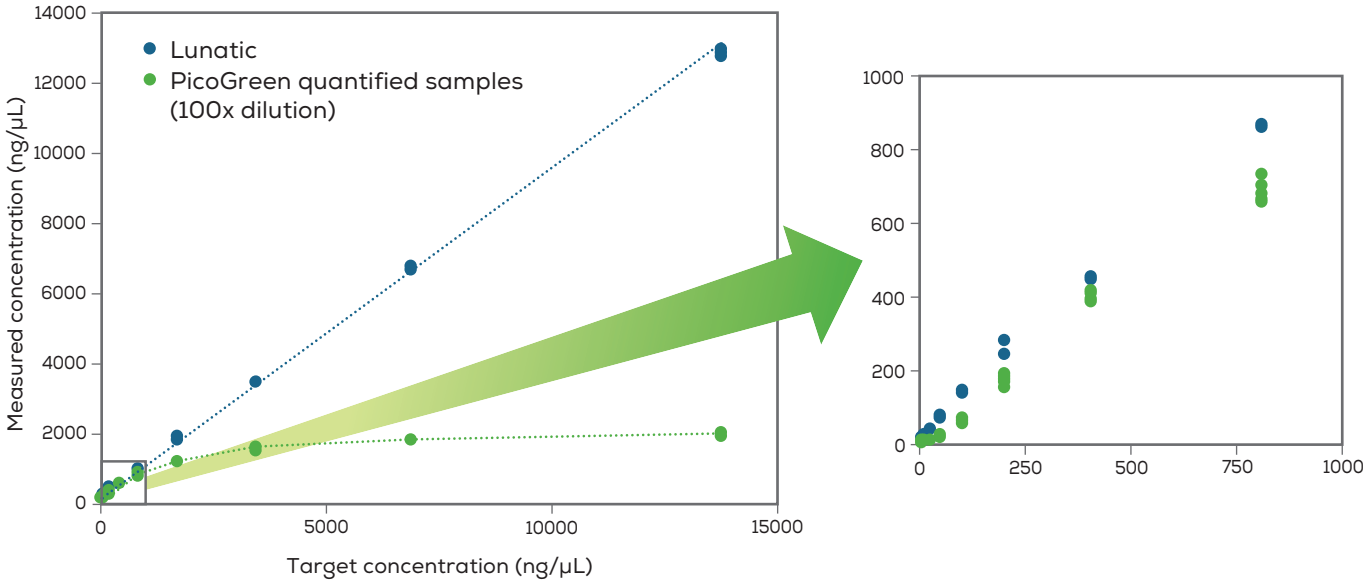
Measure it all

Lunatic is the only system out there that can measure nucleic acids at high-throughput and both low and high concentrations. It's got dynamic range that covers from 1.5 to 13,750 ng/µL (dsDNA). On the low end, go for dye-free, quick and easy QC on your precious DNA extract. Run any high concentrated plasmid prep without ever having to dilute again. Get answers in a plate-format and say goodbye to running samples one-by-one.



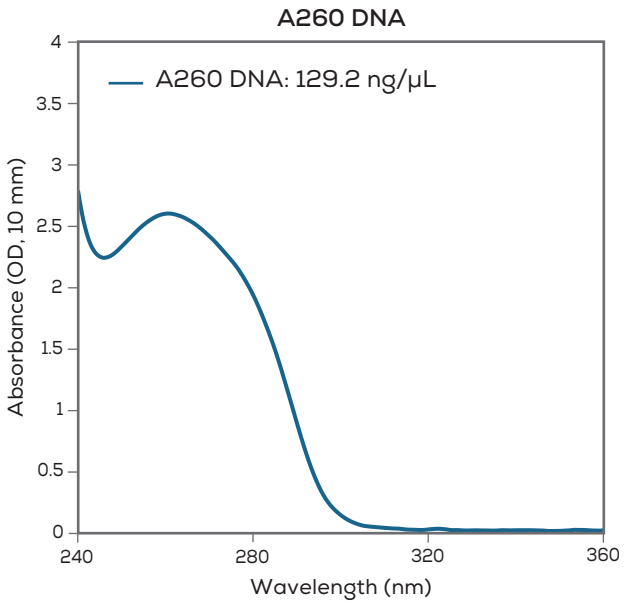
Dilution isn't a solution

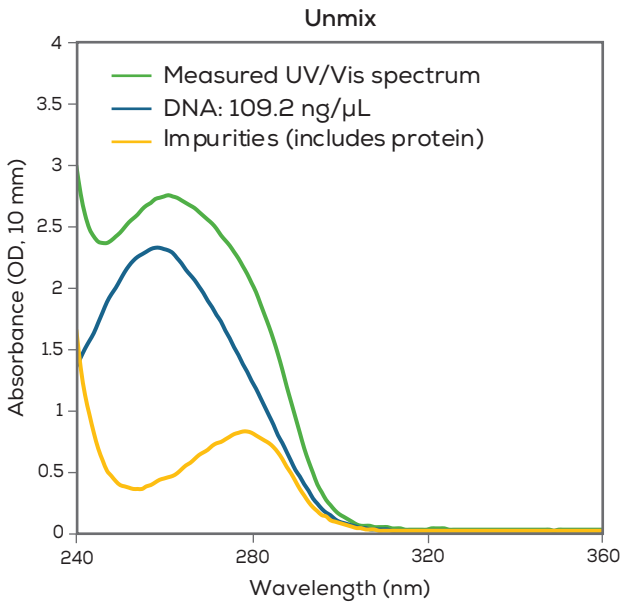
Costly fluorescent dyes are only linear for a limited range. At low concentrations Lunatic and PicoGreen agree, while at higher concentrations costly fluorescent dyes saturate. Ditch the time-sucking dye-based workflow, the drag of creating standard curves and the risk of a saturated signal. Know right away if your samples are good to go with Lunatic.



Dig up your genomic's dirt

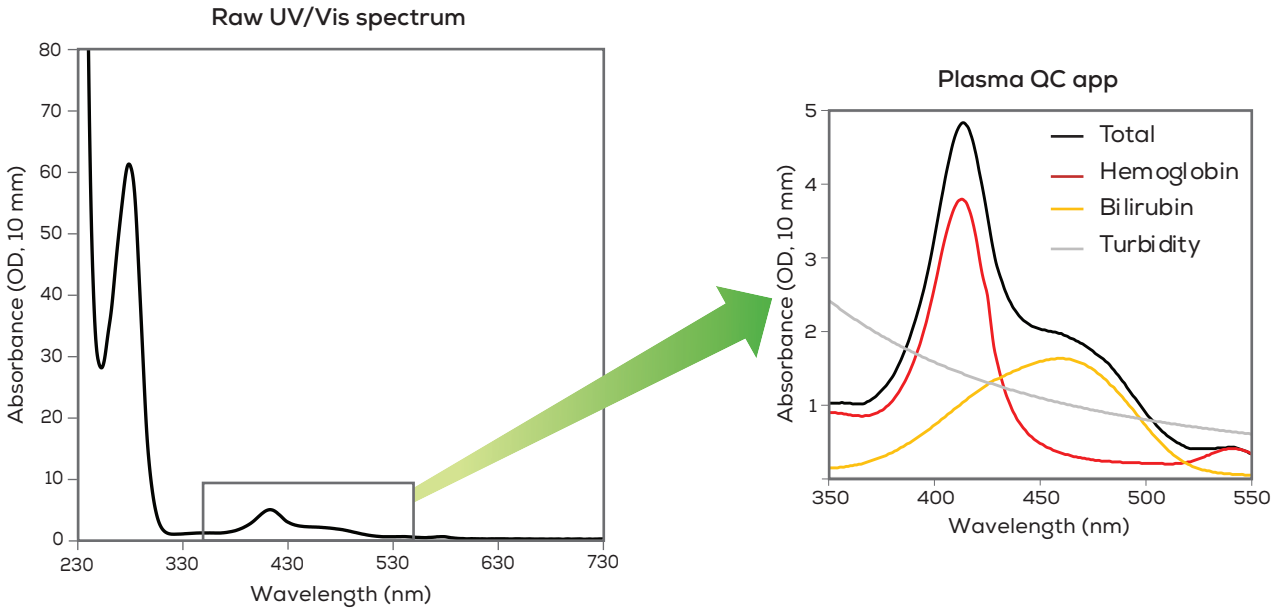
DNA and RNA samples can be freaking messy. Lunatic's unmix applications let you see annoying impurities that other UV/Vis systems would mistake as DNA or RNA. Don't miss the things that can screw up your sequencing – check your preps on Lunatic and know what's in your sample.





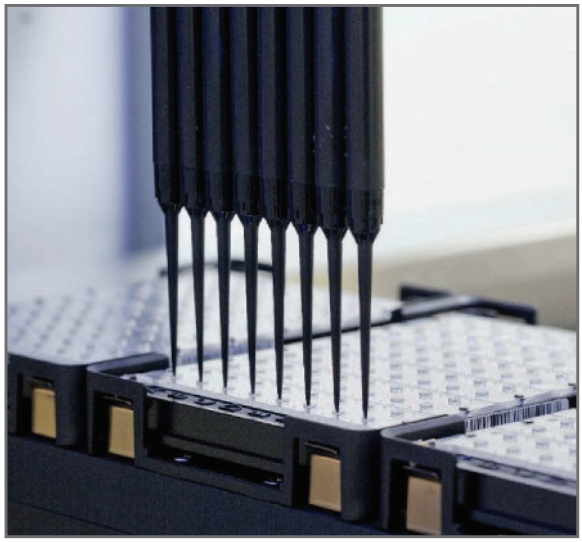
See plasma clearly

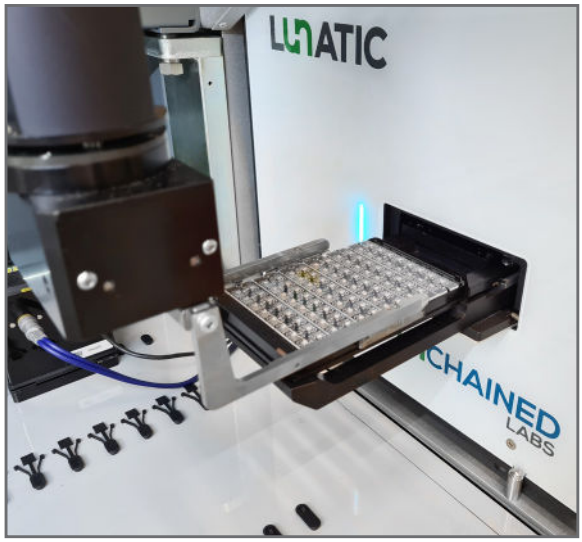
Take the guesswork out of plasma quality determinations. Lunatic eliminates uncertainty by measuring the full UV/Vis spectrum and quantifying the plasma-relevant components: hemoglobin, bilirubin and protein, along with sample turbidity profiles.



Set it and forget it

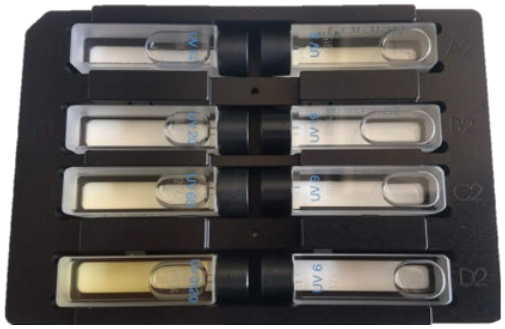
Lunatic also talks to robots. Hook it up with any liquid handler system and run your measurements completely hands-off with our API setup. Stop messing around with instruments that can't be automated and ace your throughput targets.



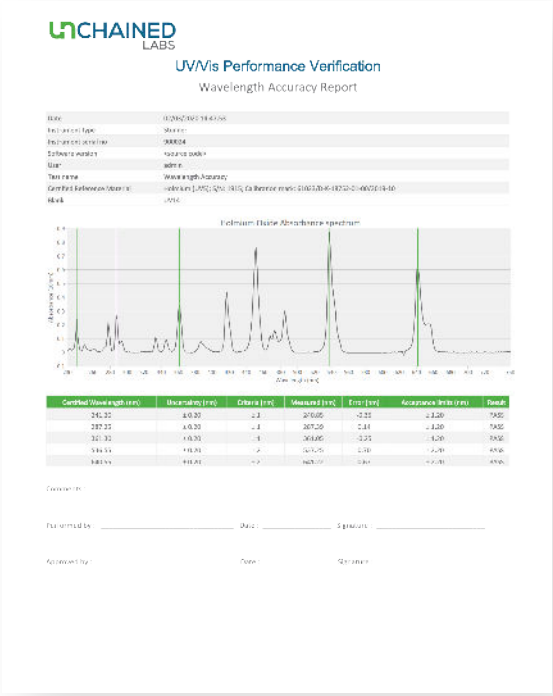


Downstream ready

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

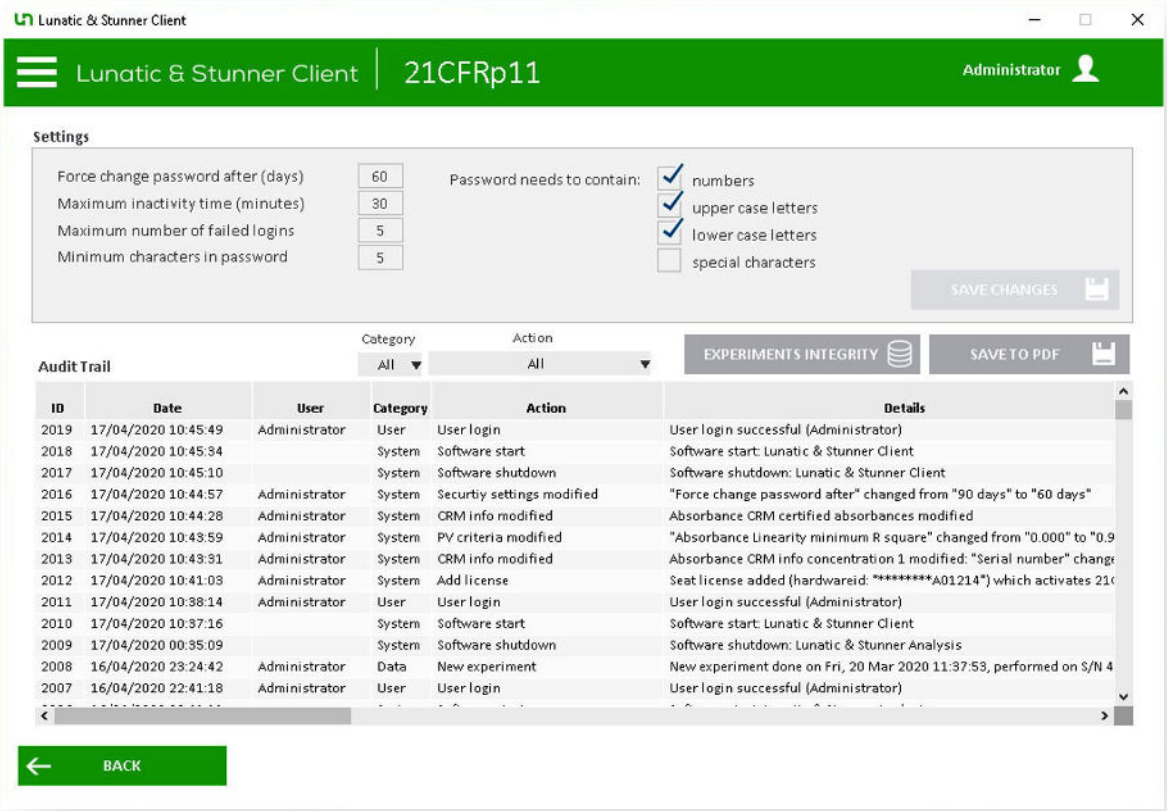

UNCHAINED LABS

UV/Vis Performance Verification

Wavelength Accuracy Report

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.



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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Rev B