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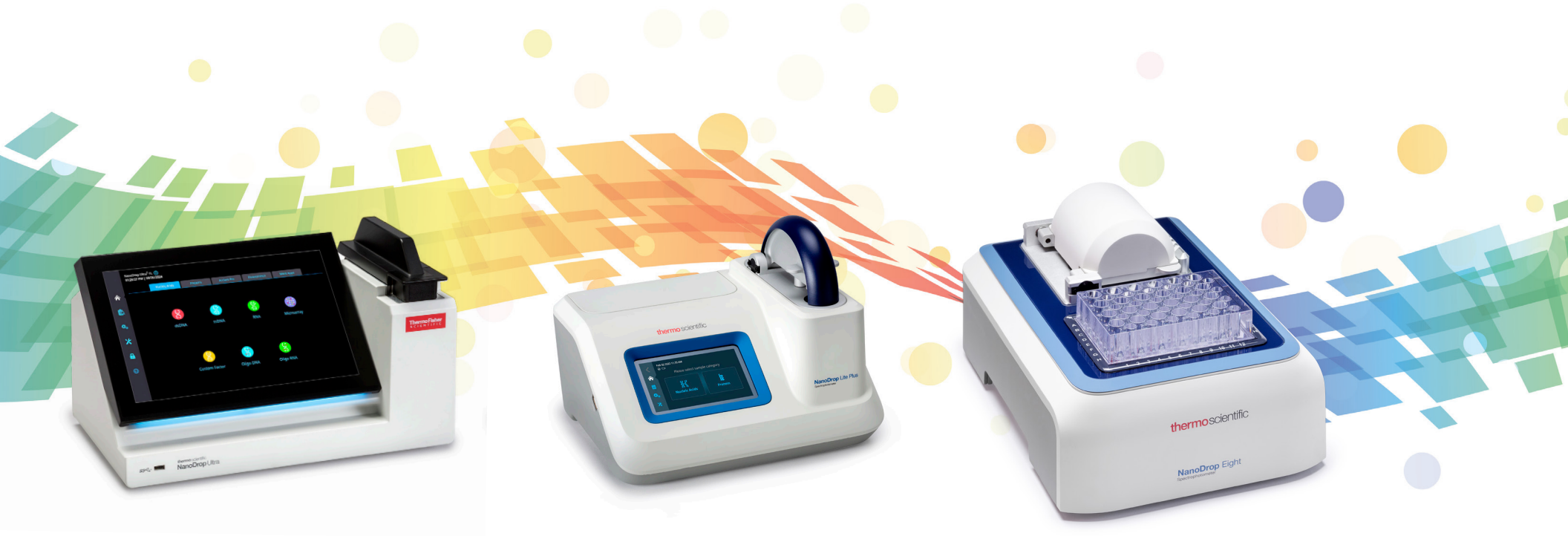


Thermo Scientific NanoDrop Products

Instruments for rapid microvolume analysis of DNA, RNA and protein samples

thermo scientific

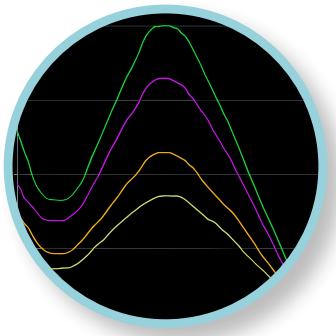
NanoDrop—trusted by scientists worldwide

Rely on fast, accurate quantification of DNA, RNA and protein samples using only 1–2 µL with Thermo Scientific™ NanoDrop™ microvolume instruments. No dilutions needed even for highly concentrated samples with pioneering sample-retention technology* using optical measurement pedestals. For over 20 years and with over 55,000 citations, NanoDrop instruments have been helping scientists around the world do their best work. With preconfigured methods for common life science applications, NanoDrop instruments make a novice perform like an expert. It's as simple as pipette, measure, know!

Pipette.

Measure.

Know.



NanoDrop products comparison—
choose the instrument that's right for you

Instrument		Measures 1–2 µL sample	Pre-programmed methods for life sciences	Full-spectral data	NUCLEIC ACIDS SAMPLES						
					A260	A260/A280	A260/A230	Fluoresence assays[3]	Acclaro contaminant ID	Acclaro Pro software option	qPCR Recipe Calculator
NanoDrop Ultra/Ultra[c]	UV-Vis	✓	✓	✓	✓	✓	✓		✓	✓	✓
NanoDrop Ultra FL/Ultra[c] FL	UV-Vis and Fluorescence	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NanoDrop Eight	UV-Vis	✓	✓	✓	✓	✓	✓		✓		
NanoDrop Lite Plus	Vis	✓	✓		✓	✓	✓				

1. Bradford, BCA, Lowry, Pierce 660 2. NanoDrop Eight systems use absorbance to measure fluorescently-labelled nucleic acids and proteins
3. NanoDrop Ultra dsDNA BR, NanoDrop Ultra dsDNA HS, and NanoDrop Ultra RNA HS Fluorescence Assays

NanoDrop Ultra/Ultra^{C}/Ultra FL/Ultra^{C} FL Spectrophotometers and Fluorometers

Intelligent analysis, streamlined workflows

- Contaminant identification and corrected concentrations with Thermo Scientific™ Acclaro™ Sample Intelligence technology
- Obtain the most complete information about the concentration and quality of your DNA or RNA samples by making absorbance or fluorescence measurements on the NanoDrop Ultra pedestal
- Fully integrated qPCR recipe calculator to save time, optimize efficiency, and achieve reliable results with precise reaction setup.

NanoDrop Eight UV-Vis Spectrophotometer

Advanced analysis, 8 samples at once

- Measure 8 samples at a time for improved efficiency
- Acclaro Sample Intelligence technology identifies contaminants in your sample
- Pharma ready with 21 CFR Part 11 compliance software and LIMS integration

NanoDrop Lite Plus UV Spectrophotometer

Simple analysis, compact design

- Affordable choice for fast, easy measurements
- Measures purified DNA, RNA, and protein concentration up to 30 Abs
- Calculates critical A260/A280 and A260/A230 purity ratios
- Portable instrument requires no PC control
- Optional docking printer prints cryogenic labels

PROTEIN PEPTIDE SAMPLES													
A280	A260/A280	A205	Colorimetric assays[1]	Acclaro contaminant ID	Acclaro Pro software option	Custom methods editor	High-res touchscreen interface	Requires computer to operate	Can evaluate FLR-labeled samples[2]	21 CFR Part 11 software option	Auto-measure capability	Integrated API	Export to Cloud
✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
✓	✓	✓	✓	✓		✓		✓	✓	✓	✓		
✓	✓						✓						

NanoDrop instrument specifications

Description	NanoDrop Ultra/Ultra^{c}/Ultra FL/Ultra^{c} FL Spectrophotometers and Fluorometers	NanoDrop Eight Spectrophotometer	NanoDrop Lite Plus Spectrophotometer
Instrument Control	Built-in touchscreen or computer software	Computer software	Built-in touchscreen
Minimum Sample Size	1 µL	1 µL	1 µL
Sample Number	1	Up to 8	1
Pathlength(s)	0.030 to 1.0 mm auto-ranging	1.0, 0.2, 0.1 mm, auto-ranging	1.0 mm and 0.2 mm (auto-ranging)
Light Source(s)	Xenon flash lamp	Xenon flashlamp	Xenon flashlamp
Excitation Maxima of LEDs	Blue: 470 nm, Red: 635 nm (fluorescence models only)	N/A	N/A
Detector Type	2048-element CMOS linear image sensor and photodiode (fluorescence models only)	2048-element CMOS linear image sensor	2048-element CMOS linear image sensor
Wavelength Range	190–850 nm	190–850 nm	230 nm, 260 nm, 280 nm
Wavelength Accuracy	±1 nm	±1 nm	± 1 nm
Spectral Resolution	≤1.8 nm (FWHM at Hg 254 nm)	≤ 1.8 nm (FWHM at Hg 254 nm)	≤ 1.8 nm (FWHM at Hg 254 nm)
Typical Measurement Repeatability	Standard: 0.002 A (1.0 mm path) or 1% CV, whichever is greater Acclaro Pro: < 3% CV	0.002 A (1.0 mm path) or 1% CV, whichever is greater*	Typical: 0.002 A (1.0 mm path) or 1%CV, whichever is greater*
Absorbance Accuracy**	3% at 0.97 A, 302 nm Acclaro Pro: 5% up to 550 A	3% at 0.97 A, 302 nm, 23 ± 2 C°	3% at 0.97 A, 302 nm, 23 ± 2C°
Absorbance Range (10 mm equivalent)	Pedestal: 0.02 – 550A, Cuvette: 0.004 – 1.5A	0.04 – 200 Abs	0.04 – 30 Abs
Lower Limit of Detection	Pedestal: 1 ng/µL (dsDNA) 0.03 mg/mL (BSA) Cuvette: 0.2 ng/µL (dsDNA) 0.006 mg/mL (BSA) Fluorescence: 0.2 ng/µL (dsDNA) 10 ng/µL (RNA)****	2.0 ng/µL (dsDNA) 1.6 ng/µL (RNA) 0.06 mg/mL (BSA) 0.03 mg/mL (IgG)	2.0 ng/µL (1.6 ng/µL) dsDNA (RNA) 0.06 mg/mL (0.03 mg/mL) BSA. (IgG)
Maximum Concentration	Pedestal: 27,500 ng/µL (dsDNA) 820 mg/mL (BSA) Fluorescence: 1,000 ng/µL (dsDNA) 1,000 ng/µL (RNA)*****	10,000 ng/µL (dsDNA) 8,000 ng/µL (RNA) 300 mg/mL (BSA) 145 mg/mL (IgG)	1,500 ng/µL (1,200 ng/µL) dsDNA (RNA) 45 mg/mL (21 mg/mL) BSA (IgG)
Measurement and Data Processing Time	Absorbance: ≤ 7 sec Fluorescence: ≤ 14 sec Acclaro Pro: ≤ 30 sec	< 20 seconds	≤ 5 seconds
21 CFR Part 11 Compliance	Yes	Yes	No
Footprint	32 x 18 x 28 cm (wdh)	24 cm x 33 cm x 17 cm (wdh)	27 cm x 22 cm x 22 cm (wdh)
Weight	4.1 kg	3.7 kg	2.7 kg (no printer). 3.2 kg (printer)
Sample Pedestal	303 stainless steel and quartz fiber	303 stainless steel and quartz fiber	303 stainless steel and quartz fiber
Cuvette Position	Optional (with stirring)	N/A	N/A
Operating Voltage	20 V (DC)	12 V (DC)	12 V (DC)
Operating Power Consumption	15 W	15 W	18 W
Standby Power Consumption	7 W	3 W	< 3 W
Software Compatibility	Standalone control. Windows 10 and 11 Professional or Enterprise	Windows® 10 Version 1607 Professional or Enterprise	Standalone control with data export via USB Flash Drive
Advanced Connectivity	Microsoft OneDrive and Google Drive Thermo Fisher Connect Platform	USB 3.0 port	USB 2.0 Port

** SD of 10 individual measurements at 0.97 Abs • ** Absorbance expressed as Abs/mm measured at 25 °C • *** Visit www.thermofisher.com/connect for details*

***** Detection limits are specific to the Quant-iT™ PicoGreen™ dsDNA assay and NanoDrop Ultra BR Fluorescence assay. The PicoGreen assay is not part of the NanoDrop product line but is offered by Thermo Fisher, availability may vary by region.*

****** Detection limits are specific to the NanoDrop Ultra BR Fluorescence Assay used*

Service and support: Our global teams are ready to support your NanoDrop instruments from installation and warranty to service plans. Compliance services are also available for NanoDrop Ultra Spectrophotometers Fluorometers and NanoDrop Eight Spectrophotometers. Ensure optimal performance, reliability, and longevity of your instrumentation with plans tailored to your needs. Contact your local sales representative for more information.

Find out more at **thermofisher.com/nanodrop**

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