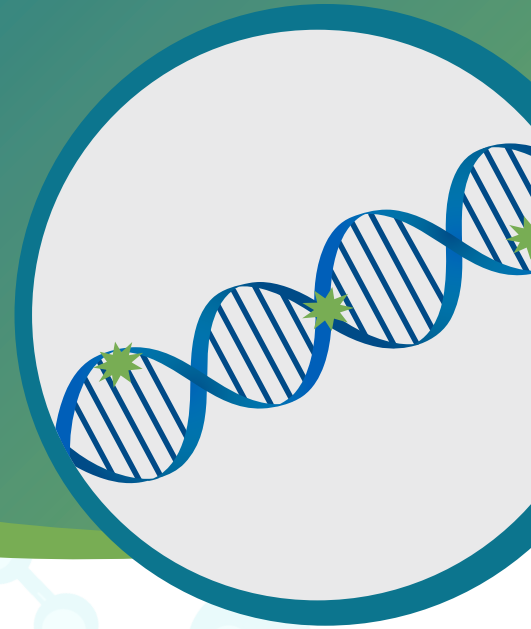


DATA SHEET

SpectraMax Quant dsDNA Assay Kits

Optimized DNA measurement for your microplate reader assay



Quantitation of DNA is a critical step in molecular biology requiring accuracy, reliability, and the use of increasingly smaller sample volumes for applications such as next-generation sequencing. Compared to spectrophotometric DNA quantification, the fluorometric method provides key advantages such as significantly increased sensitivity, high selectivity for double-stranded DNA (dsDNA) over single-stranded DNA (ssDNA) or RNA, and improved contaminant tolerance (protein and carbohydrate molecules). The increasingly popular application of the fluorometric method on microplate readers further enables high-throughput quantitation of multiple samples for which the SpectraMax® Quant™ dsDNA Assay Kits from Molecular Devices provide pre-optimized, complete solutions that are sensitive, accurate, and easy to use.

KEY FEATURES

- Optimal for a wide range of dsDNA concentrations
- Highly selective for dsDNA over single-stranded DNA or RNA
- Optimized for fluorescence microplate readers
- Simplified data acquisition and analysis with preconfigured protocols in SoftMax Pro Software

Selecting your dsDNA assay kits

The family of SpectraMax Quant dsDNA Assay Kits consist of three kits each designed for a specific range of DNA concentrations and optimized for use with fluorescence microplate readers such as the SpectraMax® readers (See Table 1). In selected kits, an enhancer further reduces the background fluorescence and increases the dynamic range. The kits allow great flexibility by covering an extremely wide detection range from 5 pg to 2,000 ng/well.

Preconfigured kit-specific protocols are included in SoftMax® Pro Software to further simplify workflow and expedite data acquisition and analysis.

Easy workflow

The SpectraMax Quant dsDNA Assay Kits are specifically optimized for use on a microplate reader with preconfigured protocols provided for customers using Molecular Devices SoftMax Pro Software. A typical experimental procedure is presented in Figure 1.

| SpectraMax Quant dsDNA Assay Kits | Linear detection range (per well) | Fluorescence reader setting* |
|-----------------------------------|-----------------------------------|-----------------------------------|
| AccuBlue™ Pico dsDNA Assay Kit | 5 pg – 3 ng | Excitation/Emission = 468 /507 nm |
| AccuClear™ Nano dsDNA Assay Kit | 30 pg – 250 ng | Excitation/Emission = 468 /507 nm |
| AccuBlue™ HiRange dsDNA Assay Kit | 2 ng – 2000 ng | Excitation/Emission = 350 /460 nm |

* Compatible with Molecular Devices microplate readers

- SpectraMax® i3/i3x Multi-Mode Microplate Reader
- SpectraMax iD3/iD5 Multi-Mode Microplate Readers
- SpectraMax Mini Multi-Mode Microplate Reader (AccuBlue HiRange only)
- SpectraMax® M2/M2e/M3/M4/M5/M5e Multi-Mode Microplate Readers
- SpectraMax® Paradigm® Multi-Mode Microplate Reader
- FlexStation® 3 Multi-Mode Microplate Reader
- Gemini™ EM/XPS Fluorescence Microplate Readers
- FilterMax™ F3/F5 Multi-Mode Microplate Readers

Table 1. SpectraMax Quant dsDNA Assay Kits.

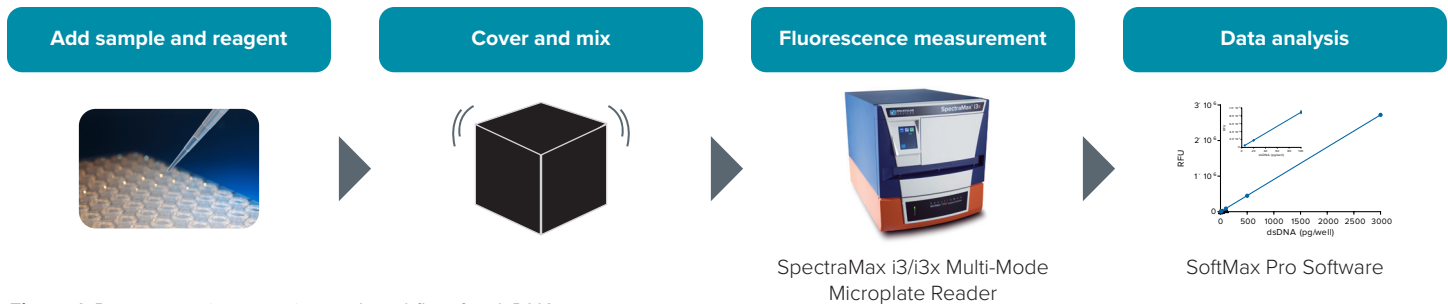


Figure 1. Representative experimental workflow for dsDNA assay.

Optimal data quality

When read on microplate readers, the SpectraMax Quant dsDNA Assay Kits enable optimal results and increased assay throughput. Data exemplifying linear ranges from the three different kits are presented in Figure 2.

High selectivity for dsDNA

The SpectraMax Quant dsDNA Assay Kits are highly selective for dsDNA over ssDNA and RNA (Figure 3).

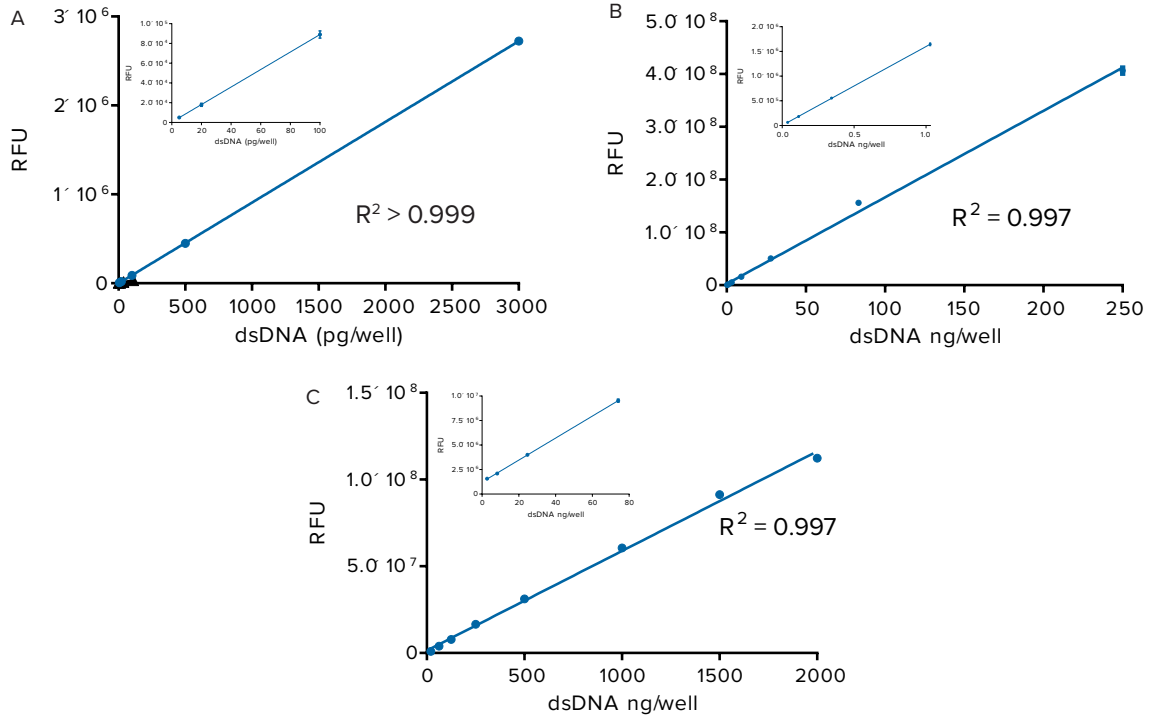


Figure 2. Representative data from three different SpectraMax Quant dsDNA Assay Kits. (A) AccuBlue Pico kit; (B) AccuClear Nano kit; (C) AccuBlue HiRange kit.

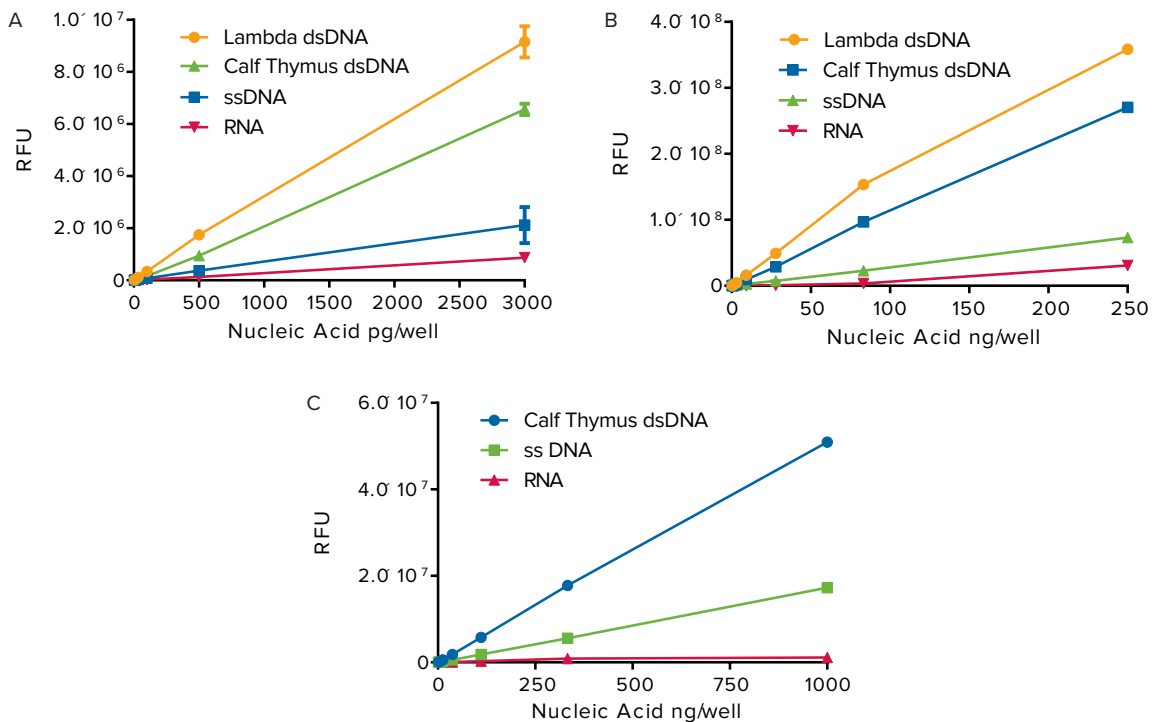


Figure 3. SpectraMax Quant dsDNA Assay Kits are highly selective for dsDNA. (A) AccuBlue Pico kit; (B) AccuClear Nano kit; (C) AccuBlue HiRange kit.

Ordering information

The SpectraMax Quant dsDNA Assay Kits are available in two formats for different throughput requirements. The Explorer kit is sufficient for two 96-well microplates whereas the Bulk kit is sufficient for ten 96-well microplates. The number of microplates is based on the example protocol that is validated by Molecular Devices.

| Assay kit | Part number | |
|--|-------------|-------|
| | Explorer | Bulk |
| SpectraMax® Quant™ AccuBlue™ Pico dsDNA Assay Kit | R8354 | R8355 |
| SpectraMax® Quant™ AccuClear™ Nano dsDNA Assay Kit | R8356 | R8357 |
| SpectraMax® Quant™ AccuBlue™ HiRange dsDNA Assay Kit | R8358 | R8359 |

*Place your order online.**

* Currently only available for US customers.

Contact Us

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| China | +86.4008203586 | India | +91.73.8661.1198 |

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