AccuGreen™ Broad Range dsDNA Quantitation Solution

A fluorescent dsDNA quantitation solution with a linear range of 2-1000 ng DNA. Designed for use with handheld fluorometers such as the Qubit® fluorometer from Thermo Fisher.

Product attributes

Excitation/Emission	500/530 nm (with DNA)
Storage Conditions	Store at 2 to 8 °C

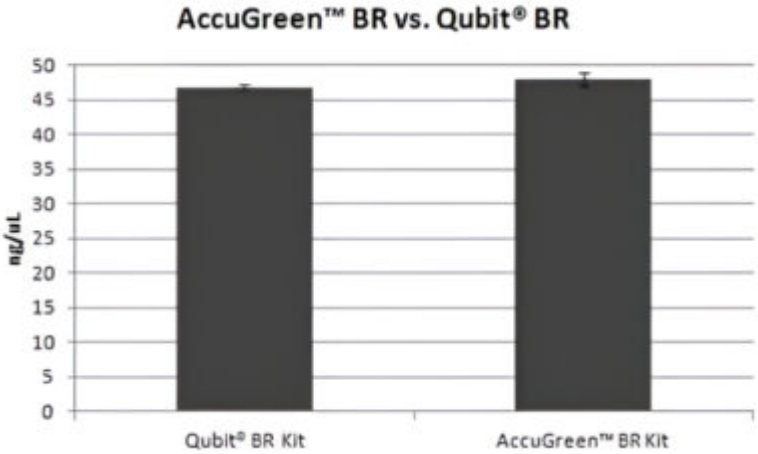
Product Description

The AccuGreen™ Broad Range dsDNA Quantitation Solution offers sensitive and selective detection of purified dsDNA samples. This assay has a linear detection range from 2 – 1000 ng and is designed for use with handheld fluorometers such as the Qubit® fluorometers from Thermo Fisher. This solution does not come with a DNA standard; see the AccuGreen™ Broad Range Kit (31069), which comes with a calf thymus DNA standard and is equivalent to the Qubit® dsDNA BR Assay Kit.

AccuGreen™ for the Qubit® fluorometer

The AccuGreen™ Broad Range dsDNA Quantitation Solution is designed for use with handheld fluorometers such as the Qubit® fluorometers from Thermo Fisher.

The linear range of the AccuGreen™ BR assay is 2 to 1000 ng of DNA per tube. DNA samples with concentrations between 0.1 and 1000 ng/uL may be quantified using sample volumes between 1 and 20 uL (for example, 1 uL of 1000 ng/uL is 1000 ng total, and 20 uL of 0.1 ng/uL is 2 ng total, which will both fall within the linear range of the assay). If you use the most common sample volume of 10 uL, the starting sample concentration should be 0.2 to 100 ng/uL.



Fluorescence-Based dsDNA Quantitation

AccuBlue®, AccuClear® and AccuGreen™ dsDNA quantitation assays allow precise quantitation of purified dsDNA samples across a wide range of concentrations and a variety of fluorescence detection instruments. Unlike absorbance-based nucleic acid quantitation, fluorescent DNA binding dyes are highly sensitive and selective for double-stranded DNA and provide a more accurate DNA concentration in the presence of contaminating RNA and other common contaminants including free nucleotides, protein, detergents and salts.

Biotium offers dsDNA quantitiation kits and solutions for different instruments and sample concentration ranges. See the table below and visit the DNA & RNA Quantitation Technology Page for details on our full line of dsDNA and RNA quantitation kits.

All DNA & RNA Quantitation Kits

Kit	DNA or RNA	Detection range (in assay)*	Dye Ex/Em (nm)	Suggested instrument	Features
AccuGreen™ High Sensitivity DNA	DNA	0.1-100 ng	502/523	Qubit® fluorometer	Compare to the Qubit® dsDNA HS assay from Thermo Fisher
AccuGreen™ Broad Range DNA	DNA	2-1000 ng	500/530	Qubit® fluorometer	Compare to the Qubit® dsDNA BR assay from Thermo Fisher Non-toxic & non-mutagentic DNA quantitation dye
AccuBlue® NextGen DNA	DNA	1-3000 pg**	468/507	Fluorescence microplate reader	Most sensitive assay available for quantitation of precious or dilute samples Optimal for sensitive applications such as NGS or digital PCR
AccuClear® Ultra High Sensitivity DNA	DNA	0.03-250 ng	468/507	Fluorescence microplate reader	Versatile kit with high sensitivity and wide linear range
AccuBlue® High Sensitivity DNA	DNA	0.2-100 ng	485/530	Fluorescence microplate reader	Non-toxic & non-mutagentic DNA quantitation dye
AccuBlue® Broad Range DNA	DNA	2-2000 ng	350/460	Fluorescence microplate reader	Broad linear range with blue fluorescence
AccuBlue® Broad Range RNA	RNA	5-1000 ng	650/670	Fluorescence microplate reader or Qubit® fluorometer	The widest linear range of available RNA quantitation kits Exceptional accuracy, sensitivity, and high RNA selectivity

* Standard assay volume is 200 uL
** AccuBlue® NextGen limit of detection is in the range of 1 pg to 5 pg depending on instrument sensitivityAccuBlue and AccuClear are registered trademarks of Biotium, Inc. AccuBlue,

References

BioRxiv (2019) doi:10.1101/2019.12.11.860585