

# Accuris™ Broad Range dsDNA Quantification Kit, 100 Assays

## Description


The Accuris BR dsDNA Quantitation Kit provides easy and accurate quantitation for dsDNA. The kit includes concentrated assay reagent, dilution buffer, and prediluted DNA standards. The assay kit is highly selective for dsDNA due to fluorescence dye high quantum yield and large molar extinction coefficient. The kit is highly reliable in detecting dsDNA with initial sample concentrations from 0.2ng/μL to 2000 ng/μL ranging from 4.0 to 2000 ng. The kit offers advantages in stability, linear dynamic range, and sensitivity over other traditional of DNA quantitation. The assay is performed at room temperature. The reagent is diluted using the buffer provided, added your sample (any volume between 1 μL and 20 μL is acceptable), and the fluorescence is read using a fluorometer.

## General Protocol

### Preparation

1. Warm the Accuris Broad Range dsDNA Quantitation Kit to room temperature. Check the BR dsDNA reagent for any precipitation. If precipitation is seen, warm up the vial in a water bath and vortex until dissolved.
2. Prepare 1× BR dsDNA Buffer by diluting the 10× BR dsDNA Buffer 1:9 in deionized water.
3. Prepare the working solution by diluting the BR dsDNA reagent 1:199 in 1× BR dsDNA buffer. Use a clean plastic tube each time to make working solution. For example, to measure 8 samples in duplicate, add 10 μL of BR dsDNA reagent to 1990 μL of BR dsDNA Buffer. Mix well and use **IMMEDIATELY**. Once mixed into the working solution, samples must be measured within 3 hours to prevent degradation of fluorescence intensity.

### Standard Curve

1. Add **190** μL of the working solution to each assay tube. (Note: Use only clear 0.5 mL PCR tubes for fluorescence analysis.
2. Add **10** μL of dsDNA standard #1 (Component 3), dsDNA standard #2 (Component 4) into separated tubes, and mix by vortexing (5-10 seconds), and incubate all tubes at room temperature for 3 minutes in the dark. **Note:** When mixing dsDNA standard and working solution, please disperse the bubbles before analysis.
1. Measure the fluorescence using the calibration program of standard curve. Click dsDNA in the Home interface, select “dsDNA: Broad Range” and press the  button. Select “Calibration” from the pop-up box. Standard 1 should be set by default as having 0 concentration. Insert standard 1 into the fluorometer port and click “Read standards” to perform the measurement. Once finished, proceed to set up and measure standard 2. After calibration, samples are ready to be measured.

### Measuring Samples

1. Add the sample (any volume between 1 μL and 20 μL is acceptable) and the working solution, and the final volume in each tube should be 200 μL.
2. Mix by vortexing (5-10 seconds). Incubate all tubes at room temperature for 3 minutes in the dark. **Note:** When mixing dsDNA standard and working solution, please disperse the bubbles before analysis.
3. Place the sample into the fluorometer for measurement.

## Kit Components & Storage Requirements

Material	Storage	Amount	Concentration
Accuris BR dsDNA Reagent (Component 1)	4 °C <b>Protect from light</b>	100 μL	200 X in DMSO
Accuris BR dsDNA Buffer (Component 2)	4 °C	25 mL	10 X
Accuris BR dsDNA Standard #1 (Component 3)	4 °C	200 μL	0 ng/μL
Accuris BR dsDNA Standard #2 (Component 4)	4 °C	200 μL	100 ng/μL


## Package contents and reordering

**Accuris Broad Range dsDNA Quantification Kit, 100 assays** - Catalog number F1000-BR-100

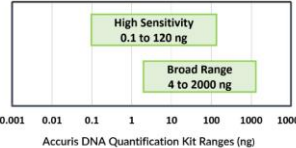

Accuris offers a full line of PCR enzymes and master mixes. Visit [www.accuris-usa.com](http://www.accuris-usa.com) for details.

### Technical Support

For trouble-shooting and tech support, contact us at [info@accuris-usa.com](mailto:info@accuris-usa.com) or call 908 769-5555.



### Broad Range dsDNA Quantification Kit, 100 assays



Accuris DNA Quantification Kit Ranges (ng)

0.001 0.01 0.1 1 10 100 1000 10000

High Sensitivity  
0.1 to 120 ng

Broad Range  
4 to 2000 ng

Store at 4°C upon receipt.

PH: 908-769-5555 EM: [info@accuris-usa.com](mailto:info@accuris-usa.com)