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 ℃ **Protect from light**	100 µL	200 X in DMSO
Accuris BR dsDNA Buffer (Component 2)	4 ℃	25 mL	10 X
Accuris BR dsDNA Standard #1 (Component 3)	4 ℃	200 µL	0 ng/µL
Accuris BR dsDNA Standard #2 (Component 4)	4 ℃	200 µL	100 ng/µL

Package contents and reordering

Accuris Broad Range dsDNA Quantification Kit, 100 assays - Catalog number NS1020-BR-100

Accuris offers a full line of PCR enzymes and master mixes. Visit www.accuris-usa.com for details.

Technical Support

For trouble-shooting and tech support, contact us at info@accuris-usa.com or call 908 769-5555.