Accuris™ High Sensitivity dsDNA Quantification Kit, 100 Assays

Description

The Accuris dsDNA HS Quantitation Kit provides a simple, sensitive and accurate quantitation for dsDNA. The kit includes concentrated assay reagent, dilution buffer, and prediluted dsDNA standards. The assay kit is highly sensitive and 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 0.005 ng/µL to 120 ng/µL ranging from 0.1 to 120 ng. The kit offers advantages in stability, linear dynamic range, and sensitivity over other traditional of DNA quantitation. The reagent is simply diluted using the buffer provided, added your sample (any volume between 1 µL and 20 µL is acceptable), and then read the concentration using a fluorometer.

General Protocol

Preparation

1. Warm up the dsDNA HS Quantitation Kit to room temperature. Check the dsDNA HS reagent for any precipitation. If precipitation is seen, warm up the vial in a water bath and vortex until dissolved.
2. Prepare the working solution by diluting the dsDNA HS reagent 1:200 in 1× dsDNA HS buffer. Use a clean plastic tube each time to make working solution. For example, to measure 8 samples in duplicate, add 10 µL of dsDNA HS reagent to 1990 µL of dsDNA HS 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 thin-wall, 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.
3. Measure the fluorescence using the calibration program of standard curve. Click dsDNA in the Home interface, select “dsDNA: High Sensitivity” 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 samples into the fluorometer for measurement.

Kit Components & Storage Requirements

Material	Storage	Amount	Concentration
Accuris HS dsDNA Reagent (Component 1)	4 ℃ **Protect from light**	100 µL	200 X in DMSO
Accuris HS dsDNA Buffer (Component 2)	4 ℃	25 mL	1 X
Accuris HS dsDNA Standard #1 (Component 3)	4 ℃	200 µL	0 ng/µL
Accuris HS dsDNA Standard #2 (Component 4)	4 ℃	200 µl	10 ng/µL

Package contents and reordering

Accuris High Sensitivity dsDNA Quantification Kit, 100 assays - Catalog number F1000-HS-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.