Operation Manual

Version 1.0

Allsheng® dsDNA High Sensitivity Quantitation Kit

ALLSHENG

Hangzhou Allsheng Instruments Co.,Ltd.

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Allsheng® dsDNA High Sensitivity Quantitation Kit

Cat.No.	Product name	Unit size	Application field	Assay range
RS-FL0101	Allsheng® dsDNA HS Quantitation Kit	100 assays	For research use only	0.2-100 ng

The Allsheng® dsDNA HS Quantitation Kit provides a simple, sensitive and accurate quantitation for dsDNA. The kit include 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 0.01 ng/μL to 100 ng/μL ranging from 0.1 to 100 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 the Allsheng® Fluo-100 Fluorometer.

一、Contents and Storage

Material	Storage	Amount	Concentration
Allsheng® HS dsDNA Reagent (component 1)	4 ℃ Protect from light	100 μL	200 X in DMSO
Allsheng® HS dsDNA Buffer (component 2)	Room temperature	25mL	1 X
Allsheng® HS dsDNA Standard #1 (component 3)	4 ℃	200 μL	0 ng/μL
Allsheng® HS dsDNA Standard #2 (component 4)	4 ℃	200 μL	10 ng/μL
Operation manual		1 copy	
0.5 mL PCR tube		50 per	

二、General Protocol

2.1 Preparation of reagent

1) Warm up Allsheng® dsDNA HS Quantitation Kit to room temperature. Check the Allsheng® 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 Allsheng® working solution by diluting the Allsheng® dsDNA HS reagent 1:200 in

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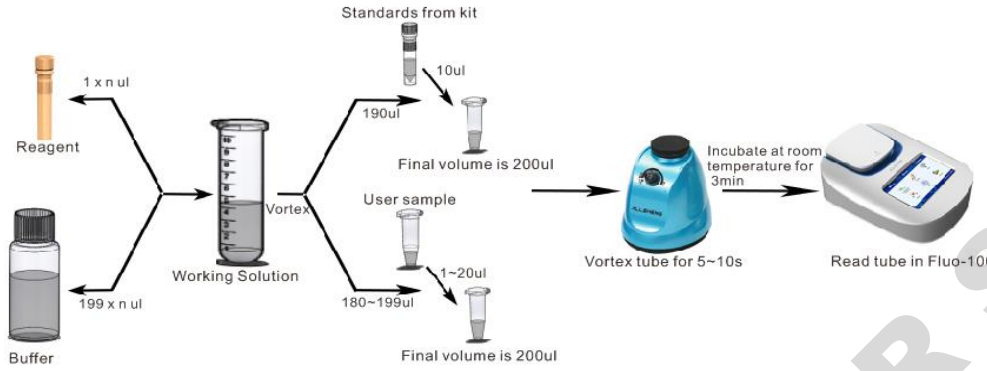
1×Allsheng® dsDNA HS buffer. Use a clean plastic tube each time to make Allsheng® working solution. For example, to measure 8 samples in duplicate, add 10 μL of Allsheng® dsDNA HS reagent to 1990 μL of Allsheng® dsDNA HS Buffer. Mix well and use **IMMEDIATELY**.



2.2 Calibration of standard curve

1) Add **190** μL of the Allsheng® working solution to each assay tube. (Note: Use only thin-wall, clear 0.5 mL PCR tubes for fluorescence analysis. Acceptable tubes include Allsheng® PCR tubes or Axygen PCR-05-C tubes.

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) Select the Blue module of Fluo-100 fluorometer, and measure the fluorescence using calibration program of standard curve. Click **dsDNA** in the **Home** interface, select **Curve ID: HS dsDNA-01**, and press **Calibration**. The tubes of dsDNA standard #1 were placed in the instrument, set dsDNA-01>ST sample-01>Concentration 0 ng/μL, and detected; the tubes of dsDNA standard #2 were placed in the instrument, set dsDNA-01>ST sample-02>Concentration 0.5 ng/μL, and finally detected. After calibration, please click the **Back** button and **save the data**.

2.3 Sample analysis

1) Add the sample (any volume between 1 μL and 20 μL is acceptable) and the Allsheng® working solution, and the final volume in each tube should be 200 μL.

2) 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) Click **dsDNA** in the **Home** interface, enter **Detecting** and input the sample volumes. Tubes of dsDNA samples were placed in the instrument and detected.

$$The\ concentration\ of\ sample(ng/\mu L) = The\ sample\ concentration\ of\ PCR\ tube(ng/\mu L) \times \frac{200\mu L}{The\ sample\ volume(\mu L)}$$

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Version Modification Records：

Version	Date	Description on the Modification
V1.0	2020.04.13	➢ Initial Release Version

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Hangzhou Allsheng Instrument aim to create a reputation brand of laboratory and life science instruments with the innovation technology, excellent quality and outstanding service in the world.

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