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dsDNA BR Assay Kit

Product Number: DA43S

Shipping and Storage

Store in dark at 2-8℃ for 6 months and transport in ice bags. Please avoid repeated freeze-thaw cycles.

Components

Components	Concentration	100T	500T
dsDNA BR Reagent	200×concentrate in DMSO	250μL	1.25mL
dsDNA BR Buffer	Not applicable	50mL	250mL
dsDNA BR Standard 1	0 ng/μL in TE buffer	1mL	5×1mL
dsDNA BR Standard 2	100 ng/μL in TE buffer	1mL	5×1mL

Description

The dsDNA BR Assay Kit is a simple, sensitive, accurate, and wide range double stranded DNA (dsDNA BR) fluorescence quantitative detection kit with a good linear relationship in the range of 2-1000ng. This reagent kit contains fluorescence detection reagents, buffer solutions, and related dsDNA BR standards. Before use, dilute the fluorescence detection reagents with buffer solution to a working solution, then add the tested dsDNA sample, create a standard curve, and use a fluorescence enzyme-linked immunosorbent assay or Qubit® Fluorescence meter for reading. This product has good tolerance to conventional pollutants such as proteins and salts.

Note

1. Fluorescent dyes all have quenching problems. Please try to avoid light as much as possible to slow down fluorescence quenching;
2. The detection reagent dsDNA BR Buffer is slightly bubbly, and should be mixed upside down to avoid severe shaking during use;
3. DsDNA BR standard, gently shake or invert each use, and centrifuge for a few seconds to collect the liquid on the tube cap and wall;
4. To ensure the accuracy of quantitative results, please use a calibrated pipette for operation. When the sample concentration is low, please increase the volume of the sample to be tested;
5. Please use and prepare the testing solution as needed. It should be used on the same day and calibrated with a standard before use.
6. For your safety and health, please wear laboratory clothes and disposable gloves when operating;
7. This product is only for scientific research purposes!

Protocol

Quantitative detection and analysis of dsDNA BR using Qubit fluorescence analyzer

1. Experimental preparation

1.1. Before use, restore the components in the reagent kit to room temperature (leave at room temperature for about half an hour). Check if there is any sediment in dsDNA BR Reagent (component A). If there is sediment, incubate the reagent in a 37℃ water bath and gently mix until the sediment is completely dissolved.

Prepare a sufficient amount of 0.5 mL PCR thin-walled tubes and label them. Do not label on the side wall of the PCR tube to avoid affecting fluorescence signal collection.

2. Prepare testing solution

Dilute an appropriate amount of dsDNA BR Reagent in a dark plastic container using dsDNA BR Buffer in proportion to 1×(e.g.

take 1μL dsDNA BR Reagent and add 199μL dsDNA BR Buffer), invert and mix well. The working fluid should be prepared as needed, and a clean container should be used for each preparation and testing of the working fluid.

3. Prepare the sample to be tested

3.1. Prepare standard sample 1 and standard sample 2 for testing. Take 190μL of the detection working solution into a standard PCR tube, add 10μL of dsDNA BR Standard 1 and dsDNA BR Standard 2 to the corresponding labeled standard PCR tubes, gently vortex and oscillate for 2-3 seconds to avoid the formation of bubbles as much as possible, and centrifuge for a few seconds.

3.2. Prepare the sample to be tested. Take 180-199μL of the detection working solution into the sample PCR tube, add 1-20μL of the sample to be tested separately, so that the final volume of each sample in the PCR tube is 200μL. Gently vortex for 2-3 seconds to avoid the formation of bubbles as much as possible.

4. Detection

4.1. Incubate all PCR tubes to be tested at room temperature in the dark for 2 minutes.

4.2. According to the operating instructions of the Qubit fluorescence analyzer, select the dsDNA BR detection program, correct the fluorescence curve with the standard sample to be tested, and then measure the concentration of the sample to be tested.