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dsDNA HS Assay Kit

Product Number: PC1260

Shipping and Storage

Transport in ice bags and store in dark at 2-8℃ for 12 months.

Components

Component	PC12601 100 Preps	PC12602 500 Preps
dsDNA Reagent	250 μL	1.25 mL
dsDNA Buffer	50 mL	250 mL
dsDNA Standard 1	1 mL	5×1 mL
dsDNA Standard 2	1 mL	5×1 mL

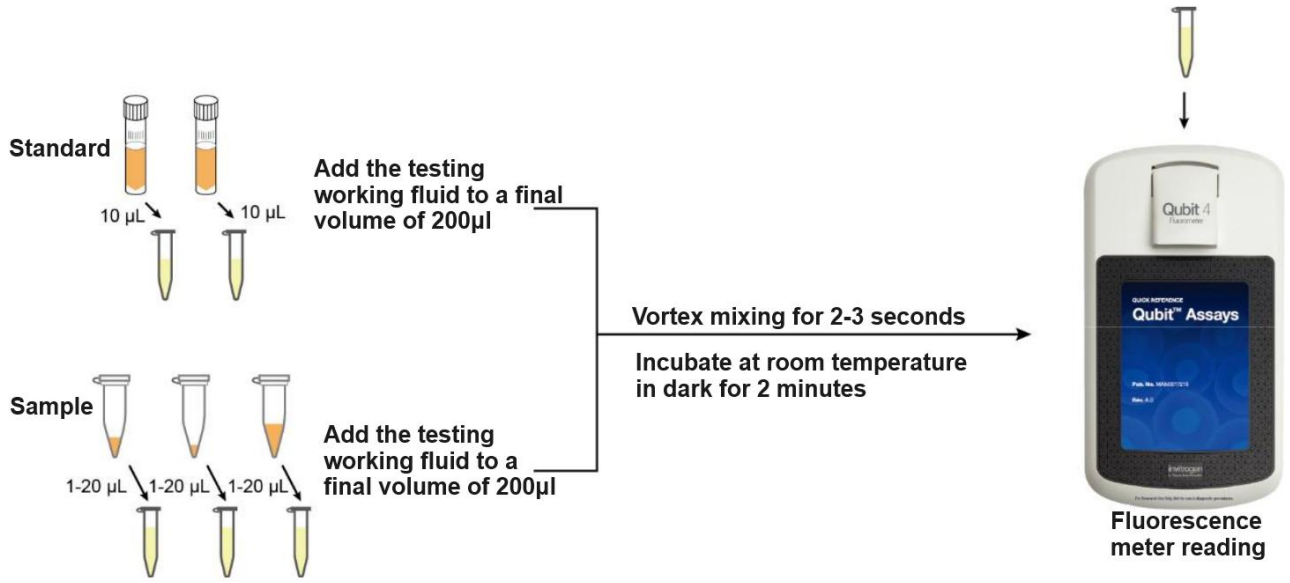
Description

The dsDNA HS Assay Kit is a fast, sensitive, and accurate fluorescent quantitative detection kit for double stranded DNA (dsDNA). This reagent kit has high selectivity for dsDNA and has a good linear relationship in the range of 0.2-100 ng. This reagent kit is easy and convenient to operate. When in use, simply mix the detection solution with the dsDNA sample to be tested, and you can use a Qubit fluorescence meter or fluorescence enzyme-linked immunosorbent assay (ELISA) reader for reading. The operation is simple and the results are reliable, making it an ideal choice for NGS large-scale DNA sample quantification (such as Input DNA quantification, DNA library quantification, etc.). This reagent kit 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. For DNA standards, invert them several times before each use and then centrifuge them instantaneously for a few seconds (do not vortex shake);
3. For your safety and health, please wear laboratory clothes and disposable gloves when operating.
4. This product is only for scientific research purposes!

Protocol



1. Experimental preparation

1.1. Before use, restore the components in the reagent kit to room temperature.

1.2. Prepare a sufficient amount of 0.5mL 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

In a plastic container, dilute an appropriate amount of dsDNA Reagent to 1x in proportion using dsDNA Buffer (for example: take 1μL dsDNA Reagent and add 199μL dsDNA Buffer), and use it as it is. After preparing the working fluid, use it within 3 hours.

3. Prepare the sample to be tested

3.1. Prepare standard samples for inspection. Take 190μL of the detection working solution and transfer it to the standard PCR tube. Add 10μL of dsDNA Standard 1 and dsDNA Standard 2 to the corresponding standard PCR tube, gently vortex and shake for 2-3 seconds to avoid the formation of bubbles as much as possible.

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. Testing

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 High Sensitivity detection program to measure the fluorescence signal value.

Appendix

The influence of pollutants on the detection results of dsDNA quantitative detection kits

Contaminants	Concentration in 10μL sample	Concentration during sample testing	Detection result
Salts			
Ammonium acetate	200mM	10 mM	OK
Sodium acetate	200mM	10 mM	OK
Sodium chloride	200mM	10 mM	OK
Magnesium chloride	40 mM	2 mM	OK
Organic Solvents			
Phenol	2%	0.1%	OK
Ethanol	20%	1%	OK
Chloroform	4%	0.2%	OK

Detergents			
Sodium dodecyl sulfate	0.2%	0.01%	OK
Triton X-100	0.02%	0.001%	OK
Other Compounds			
Bovine serum albumin	400μg/mL	20μg/mL	OK
RNA	1×*	1×*	OK
dNTPs	2 mM	100μM	OK
Polyethylene glycol	20%	1%	OK
Agarose	2%	0.1%	OK

Note:1×: represents RNA containing the same concentration as dsDNA.