1× dsDNA HS Assay Kit

Cat.No.: HYD411

Product Description

1×dsDNA HS Assay Kit is a rapid, highly sensitive and accurate fluorescent quantitative detection kit for double-stranded DNA (dsDNA). This kit is highly selective for dsDNA and has good linearity in the range of 0.2 ng-100 ng, the quantitation range is between 10 pg/μL to 100 ng/μL. This kit is easy to operate, providing a ready-to-use working solution that enables simple dsDNA sample quantification on Qubit Fluorometer or Fluorescence Microplate Reader. It is an ideal choice for NGS large-scale DNA sample quantification (such as input DNA quantification, DNA library quantification, etc.). The kit shows strong resistance to common contaminants such as proteins and salts.

Components

Components	Concentration	100 rxn	500 rxn
1×dsDNA HS Working Solution	1×concentrate in DMSO	50 mL	250 mL
dsDNA Standard 1	0 ng/μL in TE buffer	1 mL	5×1 mL
dsDNA Standard 2	10 ng/μL in TE buffer	1 mL	5×1 mL

Storage

Store at 2-8 ℃ away from light for 1 year. Please avoid repeated freeze-thawing.

Instructions

1. Experimental Preparation

1) Equilibrate all kit components to room temperature prior to use, then invert the tube at least 10 times for thorough mixing.
2) Prepare sufficient 0.5 mL thin-walled PCR tubes and label them accordingly. Do not mark the side walls of PCR tubes, as this may interfere with fluorescence signal detection.

2. Preparation of Test Samples

1) Preparation of Calibration Standards: Add 190 μL Working Solution into designated standard PCR tubes, then dispense 10 μL dsDNA Standard 1 and dsDNA Standard 2 into their respective tubes. Vortex gently for 2–3 seconds and minimize bubble formation.

2) Preparation of Unknown Samples: Dispense 180–199 µL Working Solution into sample PCR tubes, then add 1–20 µL unknown sample to each tube to reach a final volume of 200 µL. Vortex gently for 2–3 seconds and avoid generating bubbles as much as possible.

3. Fluorescence Detection

1) Incubate all PCR tubes at room temperature in the dark for 2 min.

2) Follow the operating guidelines of the Qubit fluorometer, select the 1×dsDNA High Sensitivity assay program, and measure the fluorescence intensity.

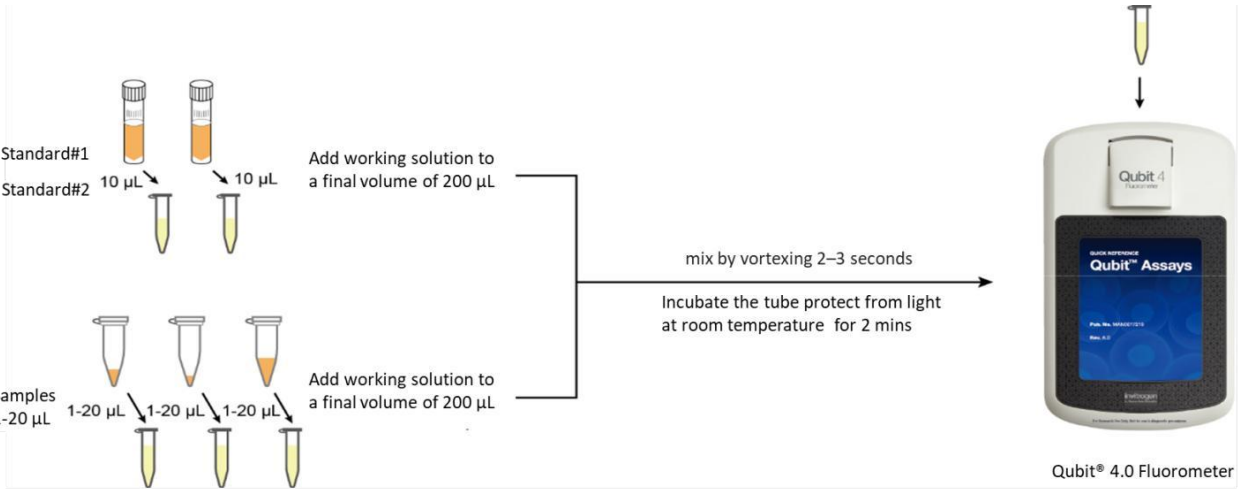


Figure 1. The operation workflow

Notes

1. For your safety and health, please wear lab coats and disposable gloves for operation.
2. This product is for research use only.