艾科瑞生物
Accurate Biology

Instruction for Use

AcuQ 1X dsDNA HS Assay Kit

AG12549
Version.V1E1

Research Use Only
Not For Diagnosis Procedures

1. Description

This product is a fluorescent quantification kit designed for rapid, sensitive, and accurate detection of double-stranded DNA (dsDNA) when used with Qubit fluorometers. The kit includes a premixed working solution (containing fluorescent dye) and dsDNA standards. In a 200 µl reaction system, it can accurately quantify dsDNA samples within a concentration range of 10 pg/µl to 100 ng/µl (with sample volumes of 1–20 µl, corresponding to a total dsDNA amount of 0.2–100 ng). The assay demonstrates strong tolerance to common contaminants such as proteins, salts, and detergents within a defined range. Compared to single-stranded DNA (ssDNA), RNA, proteins, and free nucleotides, this kit exhibits high selectivity for dsDNA.

The kit features a ready-to-use premixed formulation for simple and convenient operation. To perform the assay, simply mix the target dsDNA sample with the working solution, incubate at room temperature for 2 minutes, and measure using a Qubit fluorometer.

2. Kit Information

Kit Name	Cat. No	Specification
AcuQ 1X dsDNA HS Assay Kit	AG 12549	100 Rxns

3. Transportation and Storage

Storage	Store at 4°C
Transportation	Transport at 4°C / Ice Bag

4. Kit Components

Kit Components	Volume
1X dsDNA HS Working Solution	50 ml
dsDNA Standard 1	1 ml
dsDNA Standard 2	1 ml

5. Protocol

1. Pre-experiment Preparation

① Before use, equilibrate all kit components to room temperature.

② Prepare an adequate number of Qubit assay tubes and label them appropriately. Avoid labeling on the sidewalls of the tubes to prevent interference with fluorescence signal detection.

2. Sample Preparation

① Standard preparation: Take two 0.5 mL Qubit assay tubes, add 190 µl of 1X dsDNA HS Working Solution to each, followed by 10 µl of dsDNA Standard 1 and dsDNA Standard 2, respectively. Vortex gently for 2-3 sec to mix, avoiding bubble formation, and briefly centrifuge.

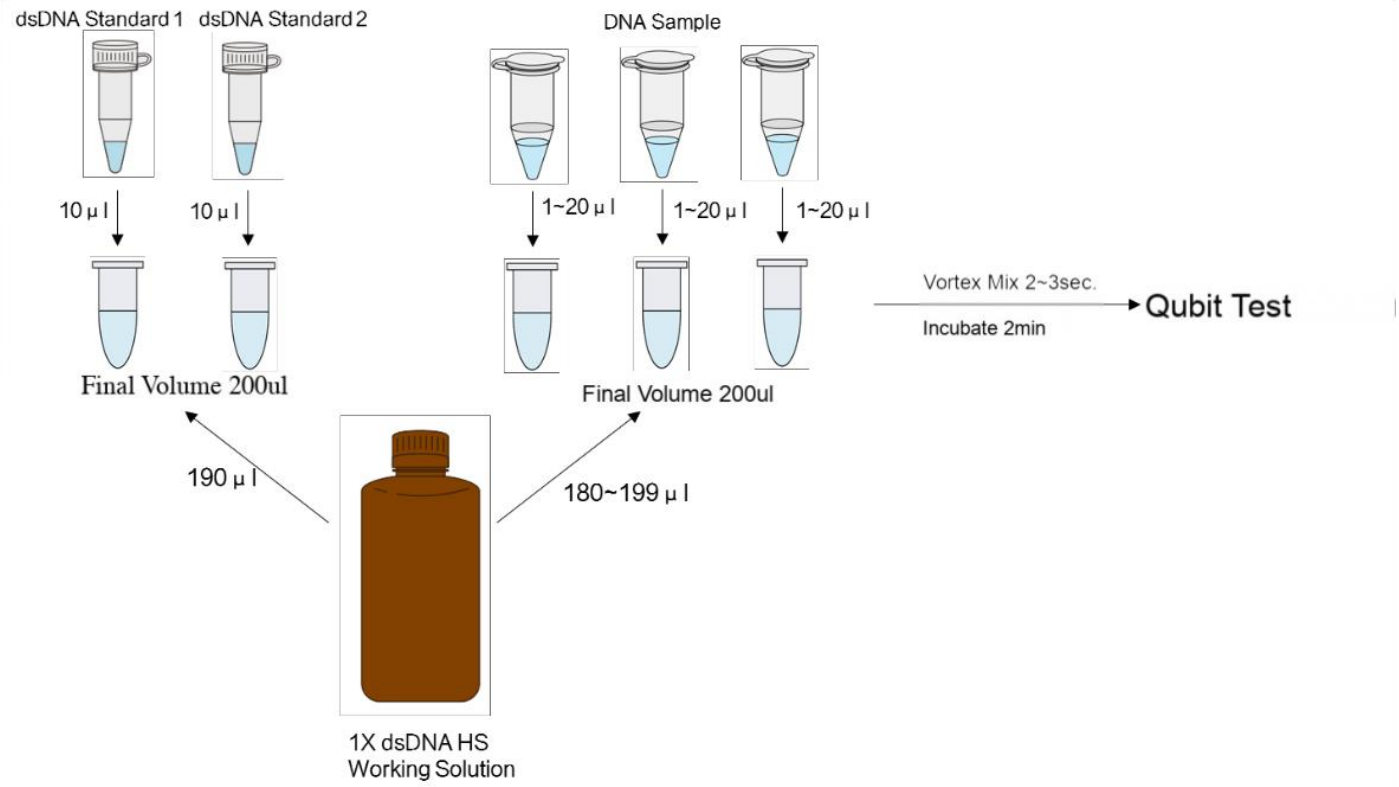
② Test sample preparation: Add 180-199 µl of 1X dsDNA HS Working Solution to a 0.5 mL Qubit assay tube, then introduce 1-20 µl of the test sample to achieve a final volume of 200 µl per tube. Vortex gently for 2-3 sec to mix, minimize bubbles, and centrifuge briefly.

3. Detection

① Incubate all Qubit assay tubes at room temperature for 2 min, protected from light.

② Follow the Qubit fluorometer operating instructions and select the 1X dsDNA High Sensitivity assay program for measurement.

Experimental Workflow



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