Equalbit 1 × dsDNA HS Assay Kit

EQ121

Version 24.1

Product Description

Equalbit 1 × dsDNA HS (High Sensitivity) Assay Kit is a simple, sensitive and accurate double-stranded DNA (dsDNA) fluorescence quantitative detection kit, which contains pre-mixed working solution (with fluorescent dye) and dsDNA standards. It has good linearity in the range of 0.2 - 100 ng dsDNA, allowing accurate quantification of dsDNA concentrations from 10 pg/μl to 100 ng/μl. In addition, it has good impurity tolerance to common contaminants, such as RNA, salts, free nucleotides, proteins, solvents, detergents, etc. This kit provides a ready-to-use working solution so that operators can directly add samples into it, enabling simple dsDNA sample quantification by the Qubit Fluorometer.

Components

Components	EQ121-01 (100 assays)	EQ121-02 (500 assays)
Equalbit 1 × dsDNA HS Working Solution	50 ml	250 ml
Equalbit 1 × dsDNA HS Standard #1 (0 ng/μl in TE buffer)	1 ml	5 ml
Equalbit 1 × dsDNA HS Standard #2 (10 ng/μl in TE buffer)	1 ml	5 × 1 ml

Storage

Store at 2 ~ 8°C and protect from light. Ship on ice pack.

Applications

It is applicable for detection of 10 pg/μl - 100 ng/μl of dsDNA samples.

Notes

1. When using Equalbit 1 × dsDNA HS Working Solution, in order to avoid contamination, please transfer a sufficient amount to a centrifuge tube before use, and then take a corresponding amount (180 - 199 μl) from the centrifuge tube for experiments.
2. Mix thoroughly standrads and samples by inversion before use to avoid inaccurate results.
3. Please use the calibrated pipette to ensure the accuracy of quantitative results.
4. Please perform the quantitative assay at room temperature. Before use, put each components in the kit at room temperature. During the experiment, do not hold the detected PCR tube with your hand for a long time to avoid light.
5. Please complete the detection within 3 h of adding samples to avoid fluorescence quenching that could lead to inaccurate results.

Machanism & Workflow

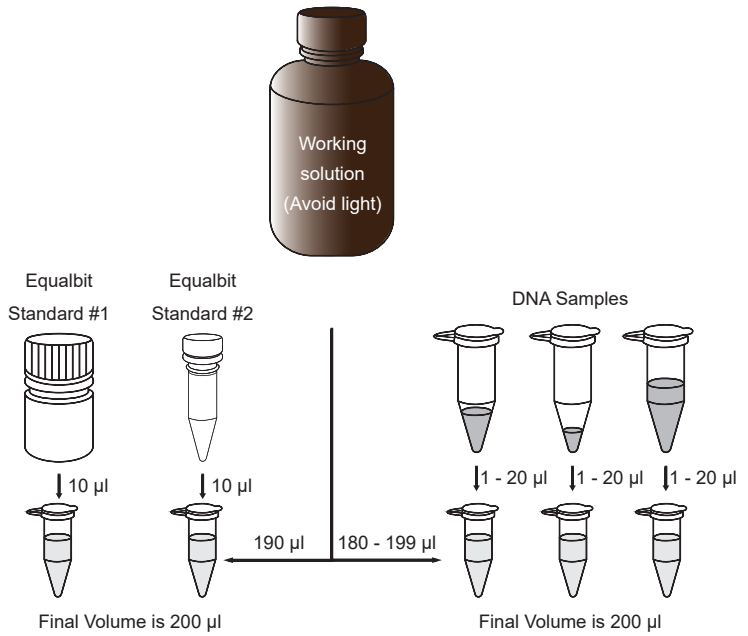

Fig 1. Workflow of Equalbit 1 × dsDNA HS Assay Kit

Experiment Process

This protocol is only suitable for Qubit 2.0, Qubit 3.0 and Qubit 4.0 fluorimeters.

1. Equilibrate all the components to room temperature before use.
2. Prepare sufficient 0.5 ml PCR tubes to accommodate all samples and standards.
   ▲ Use only 0.5 ml PCR tubes for detection. It is recommended to use 0.5 ml PCR Tubes (Vazyme #PCR00105).
3. Label the lid of each standard and sample tube correctly. Do not label the side of the tube as this could interfere with the sample read.
4. Prepare the standard solution. Take 190 µl of Equalbit 1 × dsDNA HS Working Solution into standard PCR tubes, and then add 10 µl of Equalbit 1 × dsDNA HS Standard # 1 and Standard # 2 to corresponding standard PCR tubes. Gently vortex for 2 - 3 sec to avoid bubbles. Please make sure that the pipette volume is accurate in this step.
5. Prepare the sample solution. Take 180 - 199 µl of Equalbit 1 × dsDNA HS Working Solution into sample PCR tubes, then add 1 - 20 µl of dsDNA samples respectively, so that the final volume of each testing sample is 200 µl. Gently vortex for 2 - 3 sec to avoid bubbles. Please make sure that the pipette volume is accurate in this step.
6. All PCR tubes are incubated at room temperature for 2 min and protect from light.
7. According to the operating instructions of the Qubit Fluorometer, select the dsDNA High Sensitivity Assay program to assay the concentration.