

## EzQuant 1X dsDNA HS Quantification Kit

### Product Description

EzQuant 1X dsDNA HS (High Sensitivity) Quantification Kit contains a highly specific fluorescent dye that is designed for samples with low concentrations of dsDNA, and has good tolerance to contaminants.

It provides ready-to-use working solutions and standards that you only need to prepare 1-20  $\mu$ l of sample and perform measurements with the EzCube Fluorometer. Users can easily and accurately quantify DNA sample concentrations ranging from 10 pg/ $\mu$ l to 100 ng/ $\mu$ l.

### Components

Material	Concentration	BRQK011-010000 (T00-FPBR00-00) 100 Assays	BRQK011-050000 (T00-FPBR04-00) 500 Assays
EzQuant 1X dsDNA HS Working Solution	1X concentrate in DMSO	50 ml *1	250 ml *1
EzQuant 1X dsDNA HS Standard #1	0 ng/ $\mu$ l in TE Buffer	1 ml *1	1 ml *5
EzQuant 1X dsDNA HS Standard #2	10 ng/ $\mu$ l in TE Buffer	1 ml *1	1 ml *5

**Note: For Research Use Only. Not for use in diagnostic procedures.**

### Shipping and Storage

All the components are shipped with ice pack and can be stored at 2 - 8 °C away from light for one year.

### Required Material (not provided)

1. P2/P20/P200 Micropipette
2. Tips
3. 0.5 ml thin wall polypropylene tubes

### Perform Assay Procedure

#### ● Experimental preparation

1. Equilibrate the material to the room temperature before use.
2. Prepare enough 0.5 ml thin wall polypropylene tubes and label the tube lids.

EzQuant 1X dsDNA HS Assay requires 2 standards.

**Note: Please do not label the side wall of the tube as this could interfere with the collection of fluorescent signals.**

### ● Prepare standards

1. Add **190 µl** of **EzQuant 1X dsDNA HS Working Solution** to the appropriate tube.
2. Add **10 µl** of **EzQuant 1X dsDNA HS Standard #1** and **EzQuant 1X dsDNA HS Standard #2** to the appropriate tube.
3. Vortex gently for 2-3 seconds and avoid creating air bubbles.

**Note: If you do not need to establish a standard curve, you can skip this step.**

### ● Prepare samples

1. Add **180 - 199 µl** of **EzQuant 1X dsDNA HS Working Solution** to the appropriate tube.
2. Add **1 - 20 µl** of **samples** to the appropriate tube such that the final volume is **200 µl**.
3. Vortex gently for 2-3 seconds and avoid creating air bubbles.

### ● Detection

1. Incubate at room temperature for 2 minutes in the dark.
2. Follow procedure appropriate for your instrument.

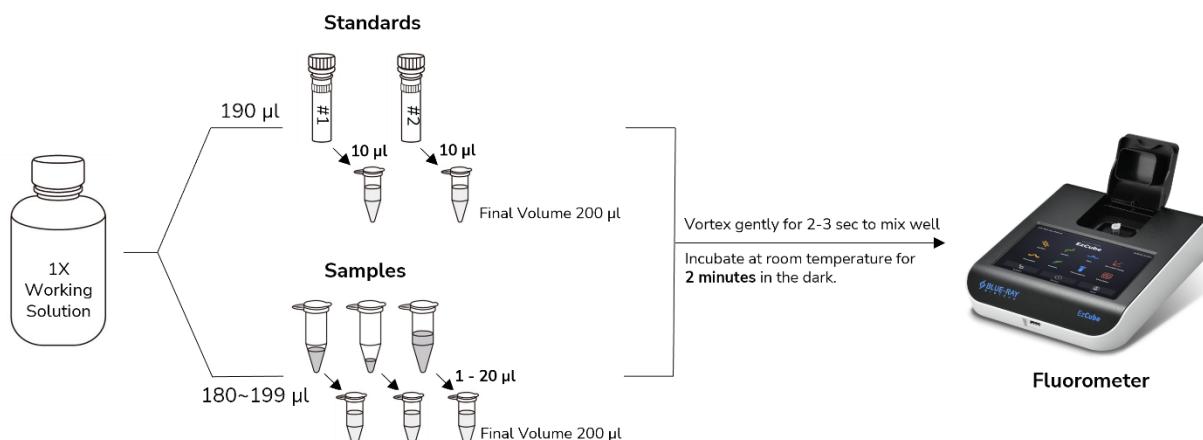


Figure 1. Workflow using EzQuant 1X dsDNA HS Quantification Kit.

Table 1. Effects of contaminants on the results of EzQuant 1X dsDNA HS Quantification Kit

Contaminant	Concentration in 10 µl sample	Concentration of sample	Detection Results
<b>Salts</b>			
Ammonium acetate	200 mM	10 mM	OK
Sodium acetate	200 mM	10 mM	OK
Sodium chloride	200 mM	10 mM	OK
Magnesium chloride	40 mM	2 mM	OK
<b>Organic Solvents</b>			
Phenol	2%	0.1%	OK
Ethanol	20%	1%	OK
Chloroform	4%	0.2%	OK
<b>Detergents</b>			
Sodium dodecyl sulfate	0.2%	0.01%	OK
Triton X-100	0.02%	0.001%	OK
<b>Other compounds</b>			
Bovine serum albumin	400 µg/ml	20 µg/ml	OK
RNA	1X*	1X*	OK
dNTPs	2 mM	100 µM	OK
Polyethylene glycerol	20%	1%	OK
Agarose	2%	0.1%	OK

\* [1X] means the concentration of contained RNA is same as the dsDNA.

## Ordering Information

Catalog No.	Description
BRFP-0200	EzCube Fluorometer (Blue & Red)
BRFP-0300	EzCube Fluorometer (Blue, Red & Green)
BRQK011-010000	EzQuant 1X dsDNA HS Quantification Kit (100 Assays)
BRQK011-050000	EzQuant 1X dsDNA HS Quantification Kit (500 Assays)
BRQK020-010000	EzQuant ssDNA Quantification Kit (100 Assays)
BRQK031-010000	EzQuant RNA HS Quantification Kit (100 Assays)
BRQK100-050000	0.5 ml Thin Wall PCR Tube

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