

## EzQuant ssDNA Quantification Kit

### Product Description

EzQuant ssDNA Quantitative Kit is for ssDNA or oligonucleotides. It enables quick and accurate quantification of low-concentration samples from 50 pg/μl to 200 ng/μl when using with EzCube fluorometer.

It does not specifically recognize ssDNA but can also bind to dsDNA and RNA. However, assay results will not be affected by common contaminants; such as proteins, salts, and detergents.

### Components

| Material                     | Concentration            | Amount<br>T00-FPBR01-00 (100 Assays) |
|------------------------------|--------------------------|--------------------------------------|
| EzQuant ssDNA Buffer         | Not applicable           | 50 ml *1                             |
| EzQuant ssDNA Reagent        | 200X in DMSO             | 250 μl *1                            |
| EzQuant ssDNA<br>Standard #1 | 0 ng/μl<br>in TE Buffer  | 1 ml *1                              |
| EzQuant ssDNA<br>Standard #2 | 20 ng/μl<br>in TE Buffer | 1 ml*1                               |

**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
4. 1.5 – 2 ml microcentrifuge tubes or 15/50 ml centrifuge 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 ssDNA 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.

3. Fresh prepare the **1X Working Solution** by diluting the **EzQuant ssDNA Reagent 1:200** in **EzQuant ssDNA Buffer**.

For example, 2 standards and 5 samples, each tube requires about 200  $\mu\text{l}$  of working solution, so a total of  $\sim 1400 \mu\text{l}$  is required. (7  $\mu\text{l}$  of EzQuant ssDNA Reagent + 1393  $\mu\text{l}$  EzQuant ssDNA Buffer)

#### ● Prepare standards

1. Add **190  $\mu\text{l}$**  of **1X Working Solution** to the appropriate tube.
2. Add **10  $\mu\text{l}$**  of **EzQuant ssDNA Standard #1** and **EzQuant ssDNA 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  $\mu\text{l}$**  of **1X Working Solution** to the appropriate tube.
2. Add **1 - 20  $\mu\text{l}$**  of **samples** to the appropriate tube such that the final volume is 200  $\mu\text{l}$ .
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.

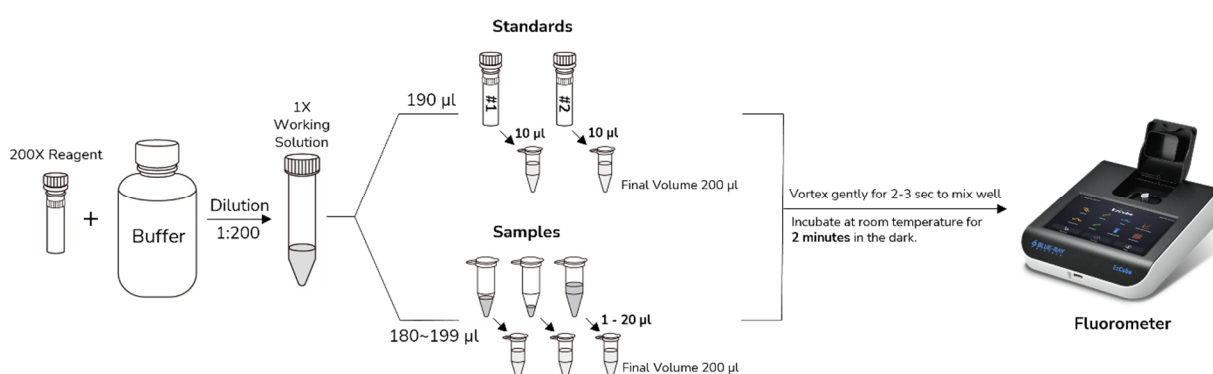


Figure 1. Workflow using EzQuant ssDNA Quantification Kit.

Table 1. Effects of contaminants on the results of EzQuant ssDNA Quantification Kit

| Contaminant          | Concentration in 10 $\mu$ l sample | Detection Results |
|----------------------|------------------------------------|-------------------|
| Ammonium sulfate     | 20 mM                              | OK                |
| Sodium chloride      | 200 mM                             | OK                |
| Ethanol              | 10%                                | OK                |
| Triton X-100         | 0.1%                               | OK                |
| Bovine serum albumin | 1 mg/ml                            | OK                |
| dNTPs                | 2 mM                               | OK                |
| EDTA                 | 2 mM                               | OK                |

### Ordering Information

| Catalog No.   | Description   |
|---------------|---|
| BRFP-0200     | EzCube Fluorometer (Blue & Red)                     |
| BRFP-0300     | EzCube Fluorometer (Blue, Red & Green)              |
| T00-FPBR00-00 | EzQuant 1X dsDNA HS Quantification Kit (100 Assays) |
| T00-FPBR04-00 | EzQuant 1X dsDNA HS Quantification Kit (500 Assays) |
| T00-FPBR01-00 | EzQuant ssDNA Quantification Kit (100 Assays)       |
| T00-FPBR02-00 | EzQuant RNA HS Quantification Kit (100 Assays)      |
| T00-FPBR03-00 | 0.5 ml Thin Wall PCR Tube                           |

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