# Certificate of Analysis



# mCherry Flow Cytometer Calibration Beads

Catalog No.AmountLot Number63259520 assays2407B64A

# **Description**

The mCherry Flow Cytometer Calibration Beads allow for easy calibration of any flow cytometer with a 561 nm laser line that excites the red fluorescent protein, mCherry. The beads consist of a mixture of six distinct populations that vary in the number of attached mCherry molecules, giving each population a distinct fluorescent signature. The value for the corresponding Molecular Equivalent of Soluble Fluorophore (MESF) per peak was determined by correlating the fluorescence intensity of each respective bead population with the amount of soluble mCherry yielding the same fluorescence intensity. The lowest intensity represents the autofluorescence signal of cells not expressing red fluorescent protein, while the five remaining peaks are evenly distributed over the remaining scale of the red fluorescence detection channel.

### **Package Contents**

- 0.4 ml mCherry Flow Cytometer Calibration Beads (contains 0.05% NaN<sub>3</sub>)
- 20 ml 1X Flow Cytometer Calibration Beads Dilution Buffer

# **Storage Conditions**

• Store contents at 4°C. Do not freeze beads.

## **Expiration Data**

• AUG. 13, 2027

### **Shipping Conditions**

Blue ice

#### **Product Documents**

Documents for our products are available for download at <u>takarabio.com/manuals</u> The following documents apply to this product:

• Flow Cytometer Calibration Beads Protocol-At-A-Glance

mCherry Flow Cytometer Calibration Beads

# **Quality Control Data**

The mCherry Flow Cytometer Calibration Beads were analyzed via flow cytometry using a 561 nm laser line. The peak representing the lowest intensity was adjusted to fall in the window between  $10 \times 10^0$  and  $5.0 \times 10^1$ . At this setting, the remaining bead populations showed 5 distinct, well-separated peaks. The peak with the highest fluorescent intensity signal showed a mean fluorescent intensity of  $3 \times 10^4$  or higher.

The MESF values for the different peaks in this lot were determined to be:

Peak #	MESF
1	64,286
2	114,524
3	360,464
4	1,269,103
5	2,759,985
6	9,292,078

The mean fluorescence intensity values for the 6 different peak fractions obtained by flow cytometry showed a linear correlation to the corresponding MESF values.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

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### CATALOG NO.

632595

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#### STATEMENT 69

The DsRed-Monomer, DsRed Express, E2-Crimson and the Fruit Fluorescent Proteins are covered by one or more of the following U.S. Patents: 7,250,298; 7,671,185; 7,910,714; 8,664,471 and 8,679,749.

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