# Certificate of Analysis



# **AcGFP Flow Cytometer Calibration Beads**

Catalog No.AmountLot Number63259420 assays2407B67A

# **Description**

The AcGFP Flow Cytometer Calibration Beads allow for easy calibration of any flow cytometer with a 488 nm laser line that excites the green fluorescent proteins AcGFP1 (*Aequorea coerulescens* GFP) and EGFP. The excitation/emission spectrum and brightness of AcGFP are almost identical to those of EGFP. The beads consist of a mixture of six distinct populations that vary in the number of attached AcGFP1 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 AcGFP1 yielding the same fluorescence intensity. The lowest intensity represents the autofluorescence signal of cells not expressing green fluorescent protein, while the five remaining peaks are evenly distributed over the remaining scale of the green fluorescence detection channel.

## **Package Contents**

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

# **Storage Conditions**

• Store all components at 4°C. Do not freeze beads.

### **Expiration Date**

SEP. 02, 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

AcGFP Flow Cytometer Calibration Beads

# **Quality Control Data**

The AcGFP Flow Cytometer Calibration Beads were analyzed via flow cytometry using a 488 nm laser line.

The AcGFP beads appear as 6 distinct peaks. The MESF values for the different peaks in this lot were determined to be:

Peak #	MESF
1	279674
2	597838
3	1287514
4	4676772
5	12542518
6	38797033

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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#### STATEMENT 39

AcGFP is covered by U.S. Patent Numbers; 7,432,053, 7,667,016, 7,879,988 and 7,897,726.

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Takara Bio USA, Inc.

2560 Orchard Parkway, San Jose, CA 95131, USA U.S. Technical Support: technical\_support@takarabio.com

United States/Canada Asia Pacific **Europe** Japan 800.662.2566 +1.650.919.7300 +81.(0)77.565.6999 +33.(0)1.3904.6880