

AcGFP Flow Cytometer Calibration Beads

Catalog No(s).	Amount	Lot Number
632594	20 assays	1308009

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 coerulea* 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% NaN₃)
- 20 ml 1X Flow Cytometer Calibration Beads Dilution Buffer

Storage Conditions

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

Shelf Life

- 1 year from date of receipt under proper storage conditions.

Shipping Conditions

- Blue ice (4°C)

Product Documents

Documents for Clontech® products are available for download at www.clontech.com/manuals

The following documents apply to this product:

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

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Certificate of Analysis

Cat. No. 632594

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Quality Control Data

The AcGFP Flow Cytometer Calibration Beads were analyzed via flow cytometry using a 488 nm laser line. The peak representing the lowest intensity was adjusted to fall in the window between 1×10^0 and 1×10^1 with a mean fluorescent intensity of around 2.0 ± 1 . At this setting, the remaining bead populations showed 5 distinct, well-separated peaks. The peak with the highest fluorescent intensity showed a mean fluorescent intensity of $\geq 1 \times 10^3$.

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

Peak #	MESF
1	74,471
2	164,770
3	410,977
4	1,291,440
5	7,372,326
6	18,463,961

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

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STATEMENT 39

AcGFP is covered by U.S. Patent No. 7,432,053.

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