

KLRG1 Monoclonal Antibody (2F1), Super Bright™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Syrian hamster / IgG
Class	Monoclonal
Type	Antibody
Clone	2F1
Conjugate	Super Bright™ 780
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2735065

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1.0 µg/test	7 Publications

Product Specific Information

Description: This 2F1 monoclonal antibody reacts with the mouse Killer cell Lectin-like Receptor G1 (KLRG1), also known as Mast cell Function-associated Antigen (MAFA). KLRG1 is a homodimer of glycosylated 30-38 kDa subunits and contains a cytoplasmic motif similar to the immunoreceptor tyrosine-based inhibitory motif (ITIM). Rat MAFA was identified as an antigen specific to rat mast cells; however, the expression of mouse KLRG1/MAFA using 2F1 has not been detected on the surface of mouse mast cell lines, bone marrow-derived mast cells, or peritoneal mast cells. This antigen is expressed on approximately one-third of mouse NK cells and a subset of T cells. MHC class I molecules regulate KLRG1 via interactions with class I-specific inhibitory Ly49 molecules and SHP-1 signaling. Although KLRG1 and Ly49 are both lectin-like inhibitory receptors that are regulated by class I MHC expression, the effects of this on cell surface expression of these molecules are opposing, and the underlying regulatory mechanisms distinct.

Applications Reported: This 2F1 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 2F1 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 1.0 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright

Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 780 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

7 References

Flow Cytometry (7)

Cell reports

PI3K coordinates transcriptional, chromatin, and metabolic changes to promote effector CD8⁺ T cells at the expense of central memory.

"Published figure using KLRG1 monoclonal antibody (Product # 78-5893-82) in Flow Cytometry"

Authors: Cannons JL, Villarino AV, Kapnick SM, Preite S, Shih HY, Gomez-Rodriguez J, Kaul Z, Shibata H, Reilly JM, Huang B, Handon R, McBain IT, Gossa S, Wu T, Su HC, McGavern DB, O'Shea JJ, McGuire PJ, Uzel G, Schwartzberg PL

Year
2021

JCI insight

Hedgehog interacting protein-expressing lung fibroblasts suppress lymphocytic inflammation in mice.

"Published figure using KLRG1 monoclonal antibody (Product # 78-5893-82) in Flow Cytometry"

Authors: Yun JH, Lee C, Liu T, Liu S, Kim EY, Xu S, Curtis JL, Pinello L, Bowler RP, Silverman EK, Hersh CP, Zhou X

Year
2021

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More applications with references on thermofisher.com

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