

# KLRG1 Monoclonal Antibody (2F1), Super Bright™ 702, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Syrian hamster / IgG
Class	Monoclonal
Type	Antibody
Clone	2F1
Conjugate	Super Bright™ 702
Excitation/Emission Max	413/702 nm
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_2762668

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	11 Publications
Functional Assay (Functional)	-	1 Publication

## 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 may be used at less than or equal to 1 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 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 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.

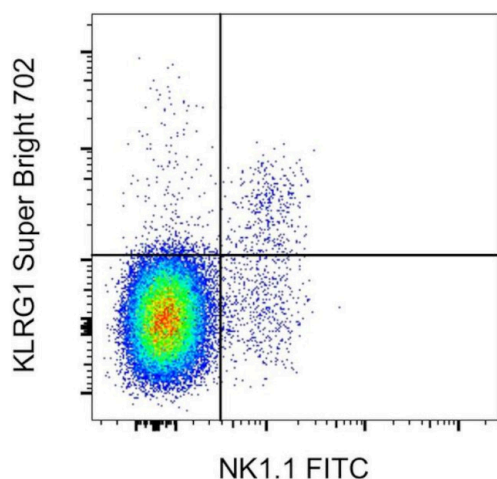
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ 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: 702 nm; Laser: Violet Laser

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

## Product Images For KLRG1 Monoclonal Antibody (2F1), Super Bright™ 702, eBioscience™



### KLRG1 Antibody (67-5893-82) in Flow

C57BL/6 mouse splenocytes were stained with NK1.1 Monoclonal Antibody, FITC (Product # 11-5941-82) and 0.5  $\mu$ g of KLRG1 Monoclonal Antibody, Super Bright 702. Total viable cells were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 12 References

### Flow Cytometry (11)

Nature communications

#### Perinatal murine cytomegalovirus infection reshapes the transcriptional profile and functionality of NK cells.

"Published figure using KLRG1 monoclonal antibody (Product # 67-5893-82) in Flow Cytometry"

Authors: Rožmani C, Lisni B, Pribani Matešić M, Mihalić A, Hiršl L, Park E, Lesac Brizi A, Indenbirken D, Viduka I, Šantić M, Adler B, Yokoyama WM, Krmpotić A, Juranić Lisni V, Jonjić S, Brizi I

Year  
2023

Cell reports

#### Murine cytomegalovirus downregulates ERAAP and induces an unconventional T cell response to self.

"Published figure using KLRG1 monoclonal antibody (Product # 67-5893-82) in Flow Cytometry"

Authors: Geiger KM, Manoharan M, Coombs R, Arana K, Park CS, Lee AY, Shastri N, Robey EA, Coscoy L

Year  
2023

[View more Flow references on thermofisher.com](#)

### Functional Assay (1)

The Journal of cell biology

#### Cancer cells educate natural killer cells to a metastasis-promoting cell state.

"Published figure using KLRG1 monoclonal antibody (Product # 67-5893-82) in Functional Assay"

Authors: Chan IS, Knútsdóttir H, Ramakrishnan G, Padmanaban V, Warriar M, Ramirez JC, Dunworth M, Zhang H, Jaffee EM, Bader JS, Ewald AJ

Year  
2020

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