

# KLRG1 Monoclonal Antibody (2F1), Alexa Fluor™ 488, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Syrian hamster / IgG
Recommended Isotype Control	Syrian Hamster IgG Isotype Control, Alexa Fluor™ 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2F1
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 nm
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2744752

Applications	Tested Dilution	Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	10 Publications
Functional Assay (FN)	-	1 Publication

## Product Specific Information

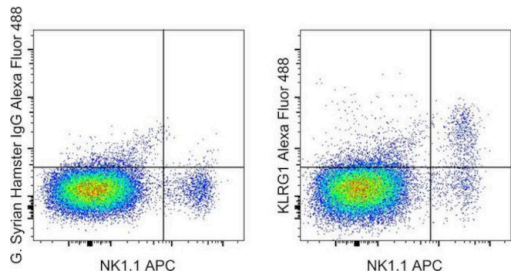
**Description:** This 2F1 monoclonal antibody reacts with the mouse Killer cell Lectin-like Receptor G1 (KLRG1), also known as Mast cell Function-associated Antigen (MAFA). KLRG1 is a homodimer of glycosylated 30-38 kDa subunits and contains a cytoplasmic motif similar to the immunoreceptor tyrosine-based 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 0.25 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.

Excitation: 488 nm; Emission: 519 nm; Laser: Blue Laser

Product Images For KLRG1 Monoclonal Antibody (2F1), Alexa Fluor™ 488, eBioscience™



**KLRG1 Antibody (53-5893-82) in Flow**

C57BL/6 mouse splenocytes were stained with NK1.1 Monoclonal Antibody, APC (Product # 17-5941-82) and 0.125 µg of Golden Syrian Hamster IgG Isotype Control, Alexa Fluor 488 (Product # 53-4914-82) (left) or 0.125 µg of KLRG1 Monoclonal Antibody, Alexa Fluor 488 (right). Total viable cells were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

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Immunohistochemistry (PFA fixed) (1)

<p>Nature communications</p> <p><b>Mitochondrial transcription factor A in RORt<sup>+</sup> lymphocytes regulate small intestine homeostasis and metabolism.</b></p> <p>"53-5893-82 was used in Immunohistochemistry (PFA fixed) to show that IL-22, a cytokine produced by RORt<sup>+</sup> lymphocytes inhibits IL-13-induced tuft cell differentiation in vitro, and suppresses the tuft cell-type 2 immune circuit and small intestine lengthening in vivo, highlighting its key role in gut tissue remodeling."</p> <p>Authors: Fu Z,Dean JW,Xiong L,Dougherty MW,Oliff KN,Chen ZE,Jobin C,Garrett TJ,Zhou L</p>	<p>Year 2021</p> <p>Species Mouse</p> <p>Dilution 1:200</p>
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Flow Cytometry (10)

<p>Advanced science (Weinheim, Baden-Wurttemberg, Germany)</p> <p><b>Group 2 Innate Lymphoid Cells Protect Mice from Abdominal Aortic Aneurysm Formation via IL5 and Eosinophils.</b></p> <p>"Published figure using KLRG1 monoclonal antibody (Product # 53-5893-82) in Flow Cytometry"</p> <p>Authors: Zhang Y,Liu T,Deng Z,Fang W,Zhang X,Zhang S,Wang M,Luo S,Meng Z,Liu J,Sukhova GK,Li D,McKenzie ANJ,Libby P,Shi GP,Guo J</p>	<p>Year 2023</p>
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<p>Nature communications</p> <p><b>Maturation and specialization of group 2 innate lymphoid cells through the lung-gut axis.</b></p> <p>"Published figure using KLRG1 monoclonal antibody (Product # 53-5893-82) in Flow Cytometry"</p> <p>Authors: Zhao M,Shao F,Yu D,Zhang J,Liu Z,Ma J,Xia P,Wang S</p>	<p>Year 2022</p>
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Functional Assay (1)

<p>The Journal of cell biology</p> <p><b>Cancer cells educate natural killer cells to a metastasis-promoting cell state.</b></p> <p>"Published figure using KLRG1 monoclonal antibody (Product # 53-5893-82) in Functional Assay"</p> <p>Authors: Chan IS,Knútsdóttir H,Ramakrishnan G,Padmanaban V,Warrier M,Ramirez JC,Dunworth M,Zhang H,Jaffee EM,Bader JS,Ewald AJ</p>	<p>Year 2020</p>
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