

PE/Fire™ 744 anti-mouse/human KLRG1 (MAFA) Antibody

Catalog# / Size	138445 / 25 µg 138446 / 100 µg
Clone	2F1/KLRG1
Regulatory Status	RUO
Other Names	MAFA, 2F1-Ag
Isotype	Syrian Hamster IgG
Description	Killer cell lectin-like receptor G1 (KLRG1) is the mouse homolog of the rat mast cell function-associated antigen (MAFA or 2F1-Ag). KLRG1 is a type II membrane glycoprotein that was first identified on the surface of rat mast cell line RBL-2H3. It is composed of a homodimer of glycosylated 30-38 kD subunits. Mouse and human homologs of KLRG1 are expressed by subsets of NK cells and lymphokine-activated killer (LAK) cells but not mast cells. KLRG1 is also expressed on subsets of CD8 ⁺ and CD4 ⁺ cells, including CD4 ⁺ and CD8 ⁺ effector/memory cells, potent regulatory CD4 ⁺ T cells. KLRG1 may be involved in regulating NK cell homeostasis. KLRG1 was found to recognize cadherins and thus inhibit immune responses by regulating the effector function and the developmental processes of NK and T cells.

Product Details

Verified Reactivity	Mouse, Human
Antibody Type	Monoclonal
Host Species	Syrian Hamster
Immunogen	IL-2 activated NK cells from C57BL/6 mice
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 744 under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. True-Stain Monocyte Blocker™ (Cat No. 426102) is recommended to minimize non-specific staining of PE/Fire™ 744 on monocytes and macrophages. * PE/Fire™ 744 has a maximum excitation of 565 nm and a maximum emission of 744 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	For successful staining of human cells, brighter fluorophore-antibody conjugates, such as PE, BV421™, or APC, are recommended. Additional reported applications (for relevant formats) include: Western Blotting¹.

Application References

(PubMed link indicates
BioLegend citation)

1. Robbins SH, *et al.* 2002. *J. Immunol.* 168:2585. (WB)
2. Robbins SH, *et al.* 2003. *J. Immunol.* 170:5876. (FC)
3. McMahon CW, *et al.* 2002. *J. Immunol.* 169:1444. (FC)

RRID

AB_3720553 (BioLegend Cat. No. 138445)
AB_3720553 (BioLegend Cat. No. 138446)

Antigen Details

Structure	KLRG1 is an inhibitory lectin-like type II transmembrane receptor containing a cytoplasmic motif similar to ITIM, expressed mainly as a homodimeric molecule consisting of two N-glycosylated subunits of approximately 30-38 kD.
Distribution	Subsets of NK cells, lymphokine-activated killer (LAK) cells and subsets of CD8 ⁺ and CD4 ⁺ cells.
Function	Regulates NK cell proliferation, maturation, and homeostasis. Inhibits immune responses by regulating the effector function and the developmental processes of NK and T cells.
Ligand/Receptor	E-cadherin
Cell Type	NK cells, T cells, Tregs
Biology Area	Immunology, Innate Immunity
Antigen References	1. Grundemann C, <i>et al.</i> 2006. <i>J. Immunol.</i> 176:1311. 2. Blaser C, <i>et al.</i> 1998. <i>J. Immunol.</i> 161:6451. 3. Huntington ND, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:4764. 4. Voehringer D, <i>et al.</i> 2001. <i>J. Immunol.</i> 167:4834.
Gene ID	50928

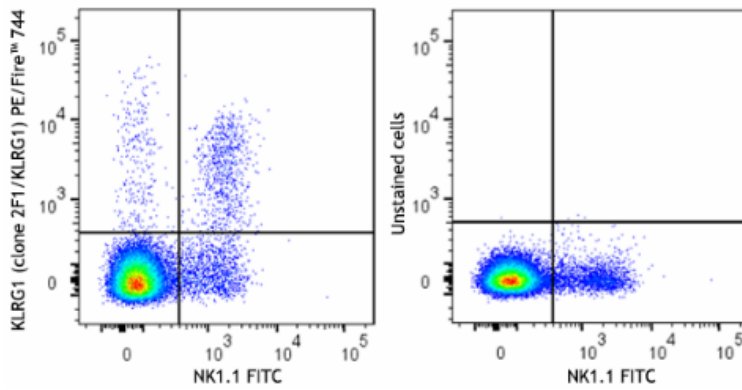
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE/Fire™ 810 anti-mouse/human KLRG1, APC/Fire™ 750 anti-mouse/human KLRG1 (MAFA), PE/Fire™ 700 anti-mouse/human KLRG1 (MAFA), APC/Cyanine7 anti-mouse/human KLRG1 (MAFA), Brilliant Violet 711™ anti-mouse/human KLRG1 (MAFA), Brilliant Violet 785™ anti-mouse/human KLRG1 (MAFA), Biotin anti-mouse/human KLRG1 (MAFA), APC anti-mouse/human KLRG1 (MAFA), FITC anti-mouse/human KLRG1 (MAFA), PE/Cyanine7 anti-mouse/human KLRG1 (MAFA), PE anti-mouse/human KLRG1 (MAFA), PE/Fire™ 640 anti-mouse/human KLRG1 (MAFA), Spark Red™ 718 anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), Spark Blue™ 550 anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), PE/Dazzle™ 594 anti-mouse/human KLRG1 (MAFA), Spark PLUS UV395™ anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), TotalSeq™-A0250 anti-mouse/human KLRG1 (MAFA), TotalSeq™-C0250 anti-mouse/human KLRG1 (MAFA), Brilliant Violet 605™ anti-mouse/human KLRG1 (MAFA), Brilliant Violet 510™ anti-mouse/human KLRG1 (MAFA), Spark NIR™ 685 anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), Brilliant Violet 421™ anti-mouse/human KLRG1 (MAFA), PerCP/Cyanine5.5 anti-mouse/human KLRG1 (MAFA), Spark Blue™ 574 anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), PE/Fire™ 744 anti-mouse/human KLRG1 (MAFA), Spark YG™ 581 anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), Spark YG™ 593 anti-mouse/human KLRG1 (MAFA) (Flexi-Fluor™), TotalSeq™-B0250 anti-mouse/human KLRG1 (MAFA)

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse NK1.1 (clone PK136) FITC and anti-mouse/human KLRG1 (MAFA) (clone 2F1/KLRG1) PE/Fire™ 744 (left) or stained with anti-mouse NK1.1 (clone PK136) FITC only (right).

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