

Anti-Mouse KLRG1 Antibody, Clone 2F1, PE

Hamster (Syrian) monoclonal antibody against mouse KLRG1, PE-conjugated

Catalog #100-1631

100 µg

0.2 mg/mL

Product Description

This monoclonal antibody reacts with the mouse killer cell lectin-like receptor G1 (KLRG1), a 30 - 38 kDa homodimer receptor and a member of the lectin-like type 2 transmembrane receptor family of proteins. This receptor is expressed by activated, mature natural killer (NK) cells and by effector and memory T cells. KLRG1 expression has been associated with reduced proliferative capacity of activated T lymphocytes or reduced effector functions of activated NK cells. It has also been noted that cell surface expression of KLRG1 is upregulated by expression of the major histocompatibility (MHC) class I molecules, and this can be mediated by interactions with class I-specific Ly49 inhibitory receptors. The expression of mouse KLRG1, using 2F1 antibody clone, has not been detected on the surface of mouse mast cell lines, bone marrow-derived mast cells, or peritoneal mast cells.

Target Antigen:	KLRG1
Alternative Names:	CLEC15A, MAFA, MAFA-2F1, MAFA-L, MAFA-LIKE
Gene ID:	50928
Species Reactivity:	Mouse
Host Species:	Hamster
Clonality:	Monoclonal
Clone:	2F1
Isotype:	Syrian hamster IgG
Immunogen:	IL-2 activated NK cells from C57BL/6 mice
Conjugate:	PE (Phycoerythrin)

Applications

Verified Applications: FC

Reported Applications: FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

Properties

Product Formulation: Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin

Purification: The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

Directions for Use: For flow cytometry, the suggested use of this antibody is $\leq 1 \mu\text{g}$ per 1×10^6 cells in 100 μL . It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

- Diaz-Salazar C & Sun JC. (2020) Coordinated viral control by cytotoxic lymphocytes ensures optimal adaptive NK cell responses. *Cell Rep* 32(12): 108186.
- Hanke T et al. (1998) 2F1 antigen, the mouse homolog of the rat "mast cell function-associated antigen", is a lectin-like type II transmembrane receptor expressed by natural killer cells. *Eur J Immunol* 28(12): 4409–17.
- Isvoranu G et al. (2019) Natural killer cell monitoring in cutaneous melanoma - new dynamic biomarker. *Oncol Lett* 17(5): 4197–206.
- Sheppard S et al. (2021) Lactate dehydrogenase A-dependent aerobic glycolysis promotes natural killer cell anti-viral and anti-tumor function. *Cell Rep* 35(9): 109210.
- Tessmer MS et al. (2007) KLRG1 binds cadherins and preferentially associates with SHIP-1. *Int Immunol* 19(4): 391–400.
- Thaventhiran JED et al. (2012) Activation of the Hippo pathway by CTLA-4 regulates the expression of Blimp-1 in the CD8 + T cell. *Proc Natl Acad Sci U S A* 109(33): E2223–9.
- Tsyklauri O et al. (2023) Regulatory T cells suppress the formation of potent KLRK1 and IL-7R expressing effector CD8 T cells by limiting IL-2. *Elife* 12: e79342.
- Wiedemann GM et al. (2020) Divergent role for STAT5 in the adaptive responses of natural killer cells. *Cell Rep* 33(11): 108498.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2024 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.