

# KLRG1 (G-20): sc-23598

## BACKGROUND

Killer cell lectin-like receptor G<sub>1</sub> (KLRG1) is expressed as a homodimer, composed of glycosylated 30-38 kDa subunits, on natural killer (NK) cells and activated CD8 T cells. KLRG1 expression is tightly regulated and is induced through different molecular mechanisms in varying subsets of immune-responsive cells. Induction of the receptor leads to inhibition of NK cell-mediated cytotoxicity and cytokine production, indicating a role for KLRG1 in the termination of NK cell activation. A rat homologue of KLRG1, designated mast cell function-associated antigen (MAFA), was originally isolated from the RBL-2H3 cell line. MAFA is expressed in rat mast cells and basophils.

## REFERENCES

1. Corral, L., et al. 2000. NK cell expression of the killer cell lectin-like receptor G<sub>1</sub> (KLRG1), the mouse homolog of MAFA, is modulated by MHC class I molecules. *Eur. J. Immunol.* 30: 920-930.
2. Voehringer, D., et al. 2001. Genomic structure, alternative splicing, and physical mapping of the killer cell lectin-like receptor G<sub>1</sub> gene (KLRG1), the mouse homologue of MAFA. *Immunogenetics* 52: 206-211.
3. Robbins, S.H., Nguyen, K.B., Takahashi, N., Mikayama, T., Biron, C.A. and Brossay, L. 2002. Cutting edge: inhibitory functions of the killer cell lectin-like receptor G<sub>1</sub> molecule during the activation of mouse NK cells. *J. Immunol.* 168: 2585-2589.
4. Abramson, J. and Pecht, I. 2002. Clustering the mast cell function-associated antigen (MAFA) leads to tyrosine phosphorylation of p62Dok and SHIP and affects RBL-2H3 cell cycle. *Immunol. Lett.* 82: 23-28.
5. Robbins, S.H., Terrizzi, S.C., Sydora, B.C., Mikayama, T. and Brossay, L. 2003. Differential regulation of killer cell lectin-like receptor G<sub>1</sub> expression on T cells. *J. Immunol.* 170: 5876-5885.

## CHROMOSOMAL LOCATION

Genetic locus: KLRG1 (human) mapping to 12p13.31.

## SOURCE

KLRG1 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of KLRG1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23598 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

KLRG1 (G-20) is recommended for detection of KLRG1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KLRG1 (G-20) is also recommended for detection of KLRG1 in additional species, including equine.

Suitable for use as control antibody for KLRG1 siRNA (h): sc-42937, KLRG1 shRNA Plasmid (h): sc-42937-SH and KLRG1 shRNA (h) Lentiviral Particles: sc-42937-V.

Molecular Weight of KLRG1: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.