

KLRG1 (E-20): sc-19536

BACKGROUND

Killer cell lectin-like receptor G1 (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 G1 (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 G1 gene (KLRG1), the mouse homologue of MAFA. *Immunogenetics* 52: 206-211.
3. Robbins, S.H., et al. 2002. Cutting edge: inhibitory functions of the killer cell lectin-like receptor G1 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., et al. 2003. Differential regulation of killer cell lectin-like receptor G1 expression on T cells. *J. Immunol.* 170: 5876-5885.

CHROMOSOMAL LOCATION

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

SOURCE

KLRG1 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KLRG1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-19536 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

KLRG1 (E-20) is recommended for detection of KLRG1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 (E-20) is also recommended for detection of KLRG1 in additional species, including canine.

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.

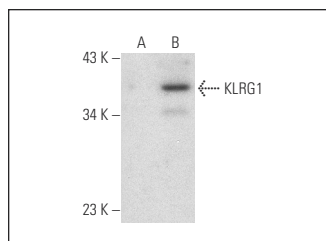
Molecular Weight of KLRG1: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or KLRG1 (h): 293T Lysate: sc-171334.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



KLRG1 (E-20): sc-19536. Western blot analysis of KLRG1 expression in non-transfected: sc-117752 (A) and human KLRG1 transfected: sc-171334 (B) 293T whole cell lysates.

RESEARCH USE

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