SANTA CRUZ BIOTECHNOLOGY, INC.

KLRG1 (N-20): sc-19535

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 islolated from the RBL-2H3 cell line. MAFA is expressed in rat mast cells and basophils.

REFERENCES

1. Corral, L., Hanke, T., Vance, R.E., Cado, D. and Raulet, D.H. 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., Kaufmann, M. and Pircher, H. 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., 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 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., Terrizzi, S.C., Sydora, B.C., Mikayama, T. and Brossay, L. 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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-19535 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.

APPLICATIONS

KLRG1 (N-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).

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.

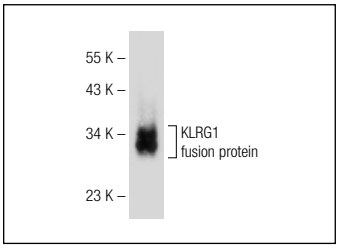
Molecular Weight of KLRG1: 30-38 kDa.

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) 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 (N-20): sc-19535. Western blot analysis of human recombinant KLRG1 fusion protein.

RESEARCH USE

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

PROTOCOLS

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