SANTA CRUZ BIOTECHNOLOGY, INC.

KLRG1 (M-85): sc-22829

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The Power to Question

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., 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 (mouse) mapping to 6 F1.

SOURCE

KLRG1 (M-85) is a rabbit polyclonal antibody raised against amino acids 1-85 of KLRG1 of mouse origin.

PRODUCT

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

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.

PROTOCOLS

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

APPLICATIONS

KLRG1 (M-85) is recommended for detection of KLRG1 of mouse and rat 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 (m): sc-42938, KLRG1 shRNA Plasmid (m): sc-42938-SH and KLRG1 shRNA (m) Lentiviral Particles: sc-42938-V.

KLRG1 (M-85) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of KLRG1: 30 kDa.

Positive Controls: P815 whole cell lysate: sc-364789, mouse spleen extract: sc-2391 or mouse lymph node extract: sc-364243.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Allen, C., et al. 2006. Retargeted oncolytic measles strains entering via the EGFRvIII receptor maintain significant antitumor activity against gliomas with increased tumor specificity. Cancer Res. 66: 11840-11850.