

Rae-1 ϵ (Y-13B): sc-80311

BACKGROUND

Natural killer (NK) cells attack tumor and infected cells, but the receptors and ligands that stimulate them are poorly understood. Two murine ligands for the lectin-like receptor NKG2-D, H60 and retinoic acid early inducible (Rae-1), are distant relatives of major histocompatibility complex class I molecules. These molecules are encoded by Rae-1 and H60 minor histocompatibility antigen genes on mouse chromosome 10 and show weak homology with MHC class I. Expression of the NKG2-D ligands is low or absent on normal adult tissues; however, they are constitutively expressed on some tumors and upregulated by retinoic acid. Ectopic expression of Rae-1 and H60 confers target susceptibility to NK cell attack. NKG2-D binds to H60 with approximately 25-fold higher affinity than to Rae-1. Rae-1 and H60 compete directly for occupancy of NKG2-D and, thus, NKG2-D can be occupied by only one ligand at a time. Additionally, Rae-1 and H60 ligands of the NKG2-D receptor stimulate tumor immunity.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: *Rae1e* (mouse) mapping to 10 A3.

SOURCE

Rae-1 ϵ (Y-13B) is a rat monoclonal antibody raised against full length recombinant Rae-1 ϵ and BaF/3 cells transfected with Rae-1 ϵ of mouse origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rae-1 ϵ (Y-13B) is recommended for detection of Rae-1 ϵ of mouse and rat origin by flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rae-1 ϵ siRNA (m): sc-72388, Rae-1 ϵ shRNA Plasmid (m): sc-72388-SH and Rae-1 ϵ shRNA (m) Lentiviral Particles: sc-72388-V.

Molecular Weight of Rae-1 ϵ : 24 kDa.

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 for detailed protocols and support products.