



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

MOUSE ANTI-CD57

With HRP conjugated secondary antibody

Catalog No.
DS-MB-00822

Species:
Human

Isotype:
Mouse IgM

Accession No:
NP_061114; NP_473366

Description

The CD57 antigen is a protein which is also called HNK-1 (human natural killer-1), B3GAT1 (Beta-1,3-glucuronyltransferase 1) or LEU7. It is a neuronally expressed adhesion molecule with a carbohydrate epitope that contains a sulfoglucuronyl residue. The antigen is expressed on natural killer cells, subsets of T-cells, B-cells, and monocytes. The CD57 antigen is present on 15% to 20% of normal peripheral blood mononuclear cells, including 60 percent of NK cells and a subset of T cells. Its role in the immune response is poorly understood. Two transcript variants (1 and 2) have been identified, but they both encode the same protein.

Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting		•		
Immunohistology – frozen*	•			1:10 - 1:100*
Immunohistology – paraffin*	•			1:10 – 1:50*
Immunohistology - resin			•	
Immunoprecipitation		•		
Flow Cytometry	•			Use 10ul of 1:50 - 1:100 dilution to label 10 ⁶ cells in 100ul.
Immunofluorescence staining			•	

*This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections but sodium citrate buffer may enhance staining.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Preparation

Immunogen was recombinant, purified human CD57. Spleen cells from immunized BALB/c mice were fused with cells of the mouse P3.X63 Ag8.653 myeloma cell line. IgM was purified by ion exchange chromatography.

Specificity

This antibody recognizes the human CD57 molecule, expressed by NK cells and a subset of T cells. It does not cross-react with bovine, canine, equine, rodent, or porcine CD57.

Reconstitution

Antibody is supplied as 0.1 mg purified polyclonal IgM in phosphate-buffered saline pH 7.4, with 0.09% sodium azide. Its final concentration is 1.0 mg/mL.

Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Storage

Store at -20⁰C, if not intended for use within a month. Otherwise, keep it at 4⁰C and minimize freezing and thawing when use. Should this product contain a precipitate we recommend microcentrifugation before use. Stable for 18 months. **Please avoid freeze-thaw cycles.**

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Reference

- 1) Mitumoto Y, Oka S, Sakuma H, Inazawa J, Kawasaki T. Cloning and chromosomal mapping of human glucuronyltransferase involved in biosynthesis of the HNK-1 carbohydrate epitope. *Genomics*. 2000;65(2):166–173.
- 2) Ibegbu CC, Xu YX, Harris W, Maggio D, Miller JD, Kourtis AP. J Expression of killer cell lectin-like receptor G1 on antigen-specific human CD8+ T lymphocytes during active, latent, and resolved infection and its relation with CD57. *J. Immunol.* 2005;174(10):6088–6094.
- 3) Inuzuka T, Quarles RH, Noronha AB, Dobersen MJ, Brady RO. A human lymphocyte antigen is shared with a group of glycoproteins in peripheral nerve. *Neurosci Lett.* 1984; 51(1):105–111.

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