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CD94 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1526a

Product Information

Application	WB, FC, E
Primary Accession	Q13241
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1H1
Isotype	IgG1
Calculated MW	20513
Description	Natural killer (NK) cells are a distinct lineage of lymphocytes that mediate cytotoxic activity and secrete cytokines upon immune stimulation. Several genes of the C-type lectin superfamily, including members of the NKG2 family, are expressed by NK cells and may be involved in the regulation of NK cell function. KLRD1 (CD94) is an antigen preferentially expressed on NK cells and is classified as a type II membrane protein because it has an external C terminus. Plays a role as a receptor for the recognition of MHC class I HLA-E molecules by NK cells and some cytotoxic T-cells. Tissue specificity: Natural killer cells.
Immunogen	Purified recombinant fragment of human CD94 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3824
Other Names	Natural killer cells antigen CD94, KP43, Killer cell lectin-like receptor subfamily D member 1, NK cell receptor, CD94, KLRD1, CD94
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD94 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KLRD1

Synonyms	CD94
Function	Immune receptor involved in self-nonself discrimination. In complex with KLRC1 or KLRC2 on cytotoxic and regulatory lymphocyte subsets, recognizes non-classical major histocompatibility (MHC) class Ib molecule HLA-E loaded with self-peptides derived from the signal sequence of classical MHC class Ia and non-classical MHC class Ib molecules (PubMed:10023772, PubMed:18064301, PubMed:18083576, PubMed:37264229, PubMed:9486650, PubMed:9754572). Enables cytotoxic cells to monitor the expression of MHC class I molecules in healthy cells and to tolerate self (PubMed:12387742, PubMed:18064301, PubMed:9430220). Primarily functions as a ligand binding subunit as it lacks the capacity to signal.
Cellular Location	Cell membrane; Single-pass type II membrane protein
Tissue Location	Expressed in NK cell subsets (at protein level) (PubMed:21825173, PubMed:9430220, PubMed:9485206). Expressed in memory/effector CD8-positive alpha-beta T cell subsets (at protein level) (PubMed:12387742, PubMed:20952657). Expressed in melanoma- specific cytotoxic T cell clones (at protein level) (PubMed:9485206) Expressed in terminally differentiated cytotoxic gamma-delta T cells (at protein level) (PubMed:20952657). KLRD1-KLRC1 and KLRD1-KLRC2 are differentially expressed in NK and T cell populations, with only minor subsets expressing both receptor complexes (at protein level) (PubMed:20952657).

References

1. Leukemia. 2008 Sep;22(9):1778-81. 2. Traffic. 2008 Jun;9(6):1019-34.

Images

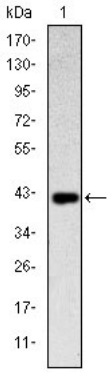

Figure 1: Western blot analysis using CD94 mAb against human CD94 (AA: 32-179) recombinant protein. (Expected MW is 42.6 kDa)

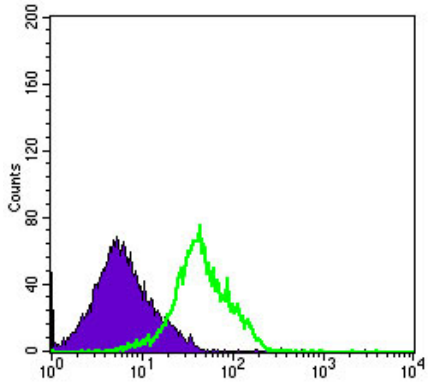

Figure 2: Flow cytometric analysis of RAJI cells using CD94 mouse mAb (green) and negative control (purple).