

CRTAM Rabbit pAb

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Catalog # AP58254

Product Information

Primary Accession	O95727
Reactivity	Human
Predicted	Rat, Pig, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44641
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CRTAM
Epitope Specificity	31-130/393
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Single-pass type I membrane protein (Potential).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CRTAM, (class-I MHC-restricted T-cell associated molecule), is an immunoglobulin-superfamily transmembrane protein and a new member of the nectin-like (Necls) family. In the immune system, CRTAM expression has been shown to be restricted to activated class-I MHC-restricted T cells, including NKT and CD8 T cells. CRTAM interacts with CADM1 and promotes natural killer (NK) cell cytotoxicity and interferon-gamma (IFN-gamma) secretion by CD8+ cells in vitro, as well as NK cell-mediated rejection of tumors expressing CADM3 in vivo. Nectin-like (Necl) molecule 2, has been identified as a ligand of CRTAM. Necl2/CRTAM molecular pair could regulate a large panel of cell/cell interactions both within and outside of the immune system.

Additional Information

Gene ID	56253
Other Names	Cytotoxic and regulatory T-cell molecule, Class-I MHC-restricted T-cell-associated molecule, CD355, CRTAM {ECO:0000312 EMBL:AAC80267.1}
Dilution	ICC/IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CRTAM {ECO:0000312 EMBL:AAC80267.1}
Function	Mediates heterophilic cell-cell adhesion which regulates the activation, differentiation and tissue retention of various T-cell subsets (By similarity). Interaction with CADM1 promotes natural killer (NK) cell cytotoxicity and IFNG/interferon-gamma secretion by CD8+ T- cells in vitro as well as NK cell-mediated rejection of tumors expressing CADM1 in vivo (PubMed: 15811952). Regulates CD8+ T-cell proliferation in response to T-cell receptor (TCR) activation (By similarity). Appears to be dispensable for CD8+ T-cell-mediated cytotoxicity (By similarity). Interaction with SCRIB promotes the late phase of cellular polarization of a subset of CD4+ T-cells, which in turn regulates TCR-mediated proliferation and IFNG, IL17 and IL22 production (By similarity). By interacting with CADM1 on CD8+ dendritic cells, regulates the retention of activated CD8+ T-cells within the draining lymph node (By similarity). Required for the intestinal retention of intraepithelial CD4+ CD8+ T-cells and, to a lesser extent, intraepithelial and lamina propria CD8+ T-cells and CD4+ T-cells (By similarity). Interaction with CADM1 promotes the adhesion to gut- associated CD103+ dendritic cells, which may facilitate the expression of gut-homing and adhesion molecules on T-cells and the conversion of CD4+ T-cells into CD4+ CD8+ T-cells (By similarity).
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:Q149L7}; Single-pass type I membrane protein. Note=In a subset of CD4+ T-cells, colocalizes with SCRIB at the immunological synapse during the late phase of T-cell activation {ECO:0000250 UniProtKB:Q149L7}
Tissue Location	In the immune system, expression is restricted to activated class-I MHC-restricted cells, including NKT and CD8 T-cells (PubMed:10811014, PubMed:15811952, PubMed:16300832). Strongly expressed in spleen, thymus, small intestine, peripheral blood leukocyte, and in Purkinje neurons in cerebellum. Expressed at much lower levels in testis, ovary, colon, lung and lymphoid tissues (PubMed:16300832)

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.