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MHC Class II Rabbit pAb

Catalog # AP96790

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P28068
Other Accession	P28068
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28931
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HLA class II histocompatibility antigen DM beta chain
Epitope Specificity	111-200/263
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 thyroglobulin type-1 domain.
SUBUNIT	Homotrimer. In the endoplasmic reticulum (ER) it forms an heterononameric MHC II-Ii complex: 3 MHC class II molecules (heterodimers of an alpha and a beta subunit) bind to the CD74 homotrimer (also known as invariant chain or HLA class II histocompatibility antigen gamma chain). In the endosomal/lysosomal system, the CD74 component undergoes sequential degradation by various proteases, including CTSS and CTSL, leaving a small fragment termed CLIP (class-II-associated invariant chain peptide) attached to the MHC class II molecule (alpha-beta-CLIP complex). This processed complex interacts with HLA_DM and HLA_DO heterodimers in order to release CLIP and facilitate the binding of antigenic peptides to the MHC class II molecules.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	HLA-DMB belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DMA) and a beta (DMB) chain, both anchored in the membrane. It is located in intracellular vesicles. DM plays a central role in the peptide loading of MHC class II molecules by helping to release the CLIP (class II-associated invariant chain peptide) molecule from the peptide binding site. Class II molecules are expressed in antigen presenting cells (APC: B lymphocytes, dendritic cells, macrophages). The beta chain is approximately 26-28 kDa and its gene contains 6 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, exon 4 encodes the transmembrane domain and exon 5 encodes the cytoplasmic tail. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	3109

Other Names	DMB_HUMAN; HLA-DMB; MHC class II antigen DMB; Really interesting new gene 7 protein; DMB; RING7; major histocompatibility complex, class II, DM beta
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	HLA-DMB
Synonyms	DMB, RING7
Function	Plays a critical role in catalyzing the release of class II- associated invariant chain peptide (CLIP) from newly synthesized MHC class II molecules and freeing the peptide binding site for acquisition of antigenic peptides. In B-cells, the interaction between HLA-DM and MHC class II molecules is regulated by HLA-DO.
Cellular Location	Late endosome membrane; Single-pass type I membrane protein. Lysosome membrane; Single-pass type I membrane protein. Note=Localizes to late endocytic compartment. Associates with lysosome membranes

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