

Rabbit HLA-DPB1 Polyclonal Antibody | anti-HLA-DPB1 antibody

HLA-DPB1 Antibody

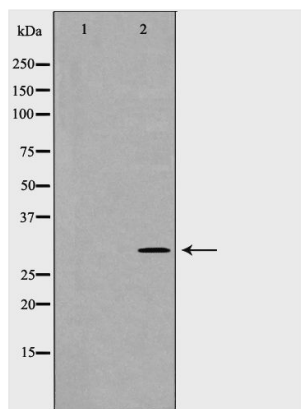
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326180	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

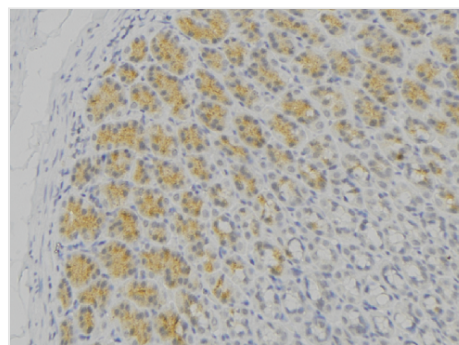
HLA-DPB1; Polyclonal Antibody; HLA-DPB1 Antibody; D6S221E; DMA; DMB; DP beta 1; DP beta 1 chain; DP(W4) beta chain; DPB 1; DPB1; DPB1_HUMAN; DRB; H2Ea; HLA class II histocompatibility antigen; HLA class II histocompatibility antigen DM beta chain; HLA DMB; HLA DP1A; HLA DPB1; HLA SB alpha chain; HLA-A; HLA-A histocompatibility type; HLA-DP; HLA-DP histocompatibility type; beta-1 subunit; HLA-DP1B; HLA-DPB; HLADM; HLADP1B; HLASB; HLASB histocompatibility type; Human MHC class II HLA SB alpha; LA class II histocompatibility antigen DP alpha 1 chain; Major histocompatibility complex class II; Major histocompatibility complex class II DP alpha 1; Major histocompatibility complex class II DP beta 1; Major histocompatibility complex; class I; A; MHC class II antigen DMB; MHC class II antigen DPB1; MHC class II DP3 alpha; MHC class II DPA1; MHC class II HLA-DP-beta-1; MHC DPB1; MHC HLA DPB1; PLT1; Primed lymphocyte test 1; RING6; RING7; anti-HLA-DPB1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	HLA-DPB1 antibody detects endogenous levels of total HLA-DPB1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	258
Applicable Applications for anti-HLA-DPB1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HLA-DPB1
Subcellular Location	Cell Membrane. Endoplasmic Reticulum Membrane. Golgi Apparatus > Trans-Golgi Network Membrane. Endosome Membrane. Lysosome Membrane. The MHC class II complex transits through a number of intracellular compartments in the endocytic pathway until it reaches the cell membrane for antigen presentation.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

**WB (Western Blot)**

Western blot analysis of Mouse spleen lysate, using HLA-DPB1 Antibody. The lane on the left is treated with the antigen-specific peptide.

**IHC (Immunohistochemistry)**

AAA326180 at 1/100 staining Human gastric tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION**Related Product Information for anti-HLA-DPB1 antibody**

Description: HLA-DPB belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DPA) and a beta chain (DPB), both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. 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. Within the DP molecule both the alpha chain and the beta chain contain the polymorphisms specifying the peptide binding specificities, resulting in up to 4 different molecules.

Function: Binds peptides derived from antigens that access the endocytic route of antigen presenting cells (APC) and presents them on the cell surface for recognition by the CD4 T-cells. The peptide binding cleft accommodates peptides of 10-30 residues. The peptides presented by MHC class II molecules are generated mostly by degradation of proteins that access the endocytic route, where they are processed by lysosomal proteases and other hydrolases. Exogenous antigens that have been endocytosed by the APC are thus readily available for presentation via MHC II molecules, and for this reason this antigen presentation pathway is usually referred to as exogenous. As membrane proteins on their way to degradation in lysosomes as part of their normal turn-over are also contained in the endosomal/lysosomal compartments, exogenous antigens must compete with those derived from endogenous components. Autophagy is also a source of endogenous peptides, autophagosomes constitutively fuse with MHC class II loading compartments. In addition to APCs, other cells of the gastrointestinal tract, such as epithelial cells, express MHC class II molecules and CD74 and act as APCs, which is an unusual trait of the GI tract. To produce a MHC class II molecule that presents an antigen, three MHC class II molecules (heterodimers of an alpha and a beta chain) associate with a CD74 trimer in the ER to form a heterononamer. Soon after the entry of this complex into the endosomal/lysosomal system where antigen processing occurs, CD74 undergoes a sequential degradation by various proteases, including CTSS and CTSL, leaving a small fragment termed CLIP (class-II-associated invariant chain peptide). The removal of CLIP is facilitated by HLA-DM via direct binding to the alpha-beta-CLIP complex so that CLIP is released. HLA-DM stabilizes MHC class II molecules until primary high affinity antigenic peptides are bound. The MHC II molecule bound to a peptide is then transported to the cell membrane surface. In B-cells, the interaction between HLA-DM and MHC class II molecules is regulated by HLA-DO. Primary dendritic cells (DCs) also express HLA-DO. Lysosomal microenvironment has been implicated in the regulation of antigen loading into MHC II molecules, increased acidification produces increased proteolysis and efficient peptide loading.

Subunit Structure: Heterodimer of an alpha and a beta subunit; also referred as MHC class II molecule. In the endoplasmic reticulum (ER) it forms a heterononamer; 3 MHC class II molecules bind to a CD74 homotrimer (also known as invariant chain or HLA class II histocompatibility antigen gamma chain). In the endosomal/lysosomal system; CD74 undergoes sequential degradation by various proteases; leaving a small fragment termed CLIP on each MHC class II molecule. MHC class II molecule interacts with HLA_DM, and HLA_DO in B-cells, in order to release CLIP and facilitate the binding of antigenic peptides.

Similarity: Belongs to the MHC class II family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	24797076
NCBI GeneID	3115
NCBI Accession #	NP_002112.3
NCBI GenBank Nucleotide #	NM_002121.5
UniProt Accession #	P04440; A0PFJ7; A5I886; A8YPB3; B5U8B4; B7VF80; B7VF87; B8ZX68; B8ZYT0; B9W5S8; B9W6F7; B9W6F9
Molecular Weight	Observed: 29 kDa Predicted: 30 kDa
NCBI Official Full Name	HLA class II histocompatibility antigen, DP beta 1 chain
NCBI Official Synonym Full Names	major histocompatibility complex, class II, DP beta 1
NCBI Official Symbol	HLA-DPB1
NCBI Official Synonym Symbols	DPB1; HLA-DP; HLA-DPB; HLA-DP1B
NCBI Protein Information	HLA class II histocompatibility antigen, DP beta 1 chain
UniProt Protein Name	HLA class II histocompatibility antigen, DP beta 1 chain
UniProt Gene Name	HLA-DPB1
UniProt Synonym Gene Names	HLA-DP1B

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/hla-dpb1-antibody-immunohistochemistry-western-blot-elisa/326180>