

Rabbit anti-Human HLA class II histocompatibility antigen, DP alpha 1 chain Polyclonal Antibody | anti-HLA-DPA1 antibody

Rabbit anti-Human HLA class II histocompatibility antigen, DP alpha 1 chain polyclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA229802	Rabbit	Human	Immunofluorescence, Western Blot, ELISA

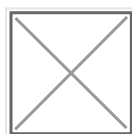
PRODUCT SYNONYMS

HLA class II histocompatibility antigen; DP alpha 1 chain; Polyclonal Antibody; Rabbit anti-Human HLA class II histocompatibility antigen; DP alpha 1 chain polyclonal Antibody; DP(W3); DP(W4); HLA-SB alpha chain; MHC class II DP3-alpha; MHC class II DPA1; anti-HLA-DPA1 antibody

PRODUCT SPECIFICATIONS

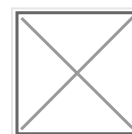
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Caprylic Acid Ammonium Sulfate Precipitation purified
Form/Format	Liquid
Sequence Length	260
Applicable Applications for anti-HLA-DPA1 antibody	IF (Immunofluorescence), WB (Western Blot), ELISA
Immunogen	Recombinant human HLA class II histocompatibility antigen, DP alpha 1 chain protein
Conjugation	Non-conjugated
Storage Buffer	Preservative: 0.03% Proclin 300; Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-168096 / sc-168097
Preparation and Storage	Shipped at 4 degree C. Upon delivery, aliquot and store at -20 degree C or -80 degree C.

IMAGES



IF (Immunofluorescence)

Immunofluorescent analysis of Hela cells using AAA229802 at a dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



WB (Western Blot)

Western blotAll lanes: HLA class II histocompatibility antigen,DP alpha 1 chain antibody at 2ug/mL Lane 1: 293T whole cell lysate Lane 2: HepG2 whole cell lysate Secondary Goat polyclonal to Rabbit IgG at 1/10000 dilution Predicted band size: 29kDa Observed band size: 29kDa

ADDITIONAL INFORMATION

Related Product Information for anti-HLA-DPA1 antibody	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 to 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. HLA-DPA1 belongs to the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DPA) and a beta (DPB) chain, 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 alpha chain is approximately 33-35 kDa and its gene contains 5 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, exon 4 encodes the transmembrane domain and 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.
Product Categories/Family for anti-HLA-DPA1 antibody	Immunology

NCBI AND UNIPROT INFORMATION

NCBI GI #	335883185
NCBI GeneID	3113
NCBI Accession #	NP_001229453.1
NCBI GenBank Nucleotide #	NM_001242524.1
UniProt Accession #	P20036; O19722; O46883; P01905; P79554; Q2Q060; Q2Q061; Q5EY03; Q5STP1; Q6DQK4; A9YWH7; B9UKH4
Molecular Weight	29,381 Da
NCBI Official Full Name	HLA class II histocompatibility antigen, DP alpha 1 chain
NCBI Official Synonym Full Names	major histocompatibility complex, class II, DP alpha 1
NCBI Official Symbol	HLA-DPA1
NCBI Official Synonym Symbols	PLT1; HLADP; HLASB; DP(W3); DP(W4); HLA-DP1A
NCBI Protein Information	HLA class II histocompatibility antigen, DP alpha 1 chain
UniProt Protein Name	HLA class II histocompatibility antigen, DP alpha 1 chain
UniProt Gene Name	HLA-DPA1
UniProt Synonym Gene Names	HLA-DP1A; HLASB

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-class-ii-histocompatibility-antigen-dp-alpha-1-chain-antibody-immunofluorescence-western-blot-elisa/229802>