

HLA-DQA2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20203c**Specification**

HLA-DQA2 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	P01906
Other Accession	NP_064440.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	28033
Antigen Region	39-66

HLA-DQA2 Antibody (Center) - Additional Information**Gene ID** 3118**Other Names**

HLA class II histocompatibility antigen, DQ alpha 2 chain, DX alpha chain, HLA class II histocompatibility antigen, DQ(6) alpha chain, HLA-DQA1, MHC class II DQA2, HLA-DQA2, HLA-DXA

Target/Specificity

This HLA-DQA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 39-66 amino acids from the Central region of human HLA-DQA2.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

HLA-DQA2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

HLA-DQA2 Antibody (Center) - Protein Information**Name** HLA-DQA2

Synonyms HLA-DXA

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 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.

Cellular Location

Cell membrane; Single-pass type I membrane protein Endoplasmic reticulum membrane; Single-pass type I membrane protein. Golgi apparatus, trans-Golgi network membrane; Single-pass type I membrane protein Endosome membrane; Single-pass type I membrane protein. Lysosome membrane; Single-pass type I membrane protein. Note=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

Tissue Location

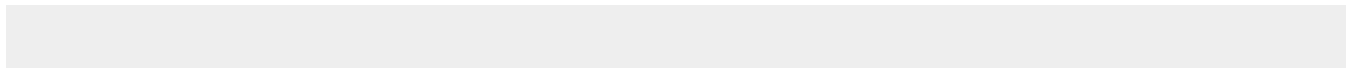
Restricted to skin Langerhans cells, although some expression at low levels may occur at the surface of B lymphoblastoid cells.

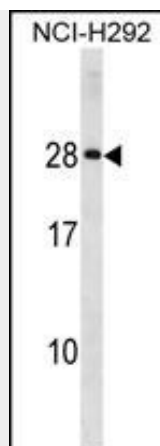
HLA-DQA2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

HLA-DQA2 Antibody (Center) - Images





HLA-DQA2 Antibody (Center) (Cat. #AP20203c) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the HLA-DQA2 antibody detected the HLA-DQA2 protein (arrow).

HLA-DQA2 Antibody (Center) - Background

This gene belongs to the HLA class II alpha chain family. The encoded protein forms a heterodimer with a class II beta chain. It is located in intracellular vesicles and plays a central role in the peptide loading of MHC class II molecules by helping to release the CLIP molecule from the peptide binding site. Class II molecules are expressed in antigen presenting cells (B lymphocytes, dendritic cells, macrophages) and are used to present antigenic peptides on the cell surface to be recognized by CD4 T-cells. [provided by RefSeq].

HLA-DQA2 Antibody (Center) - References

Ucisik-Akkaya, E., et al. Mol. Hum. Reprod. 16(10):770-777(2010)
Hor, H., et al. Nat. Genet. 42(9):786-789(2010)
Petukhova, L., et al. Nature 466(7302):113-117(2010)
Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Nakajima, M., et al. PLoS ONE 5 (3), E9723 (2010) :