abcam

ab288433

Anti-HLA DQA2 antibody [F3.3]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.02% Proclin 300 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Clone number	F3.3
Purification technique	Affinity purification Protein A
Specificity	Recognising anti-class II HLA molecules.
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

WB

Tested

Species	Human
Dilution info	0.01 µg/mL
Notes	-

Target data

See full target information HLA-DQA2

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.

Storage

Shipped at conditions	Blue Ice

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

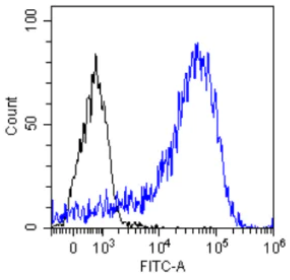
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images

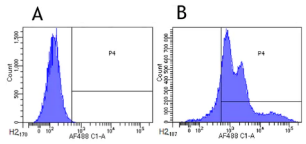


Flow Cytometry - Anti-HLA DQA2 antibody [F3.3] (ab288433)

HLA DQA2 Flow Cytometry staining using mouse Anti-HLA DQA2 antibody

The image data was generated using the chimeric rabbit version of the same antibody clone
Flow cytometric analysis of HLA DQA2 in Daudi cells using ab288433 at 10µg/ml.

Daudi cells were stained with unimmunized rabbit IgG antibody (black line) or ab288433 (blue line) at a concentration of 10 µg/ml for 30 mins at RT. After washing, bound antibody was detected using anti-rabbit IgG JK (FITC-conjugate) antibody at 2 µg/ml and cells analyzed on a FACSCanto flow-cytometer.

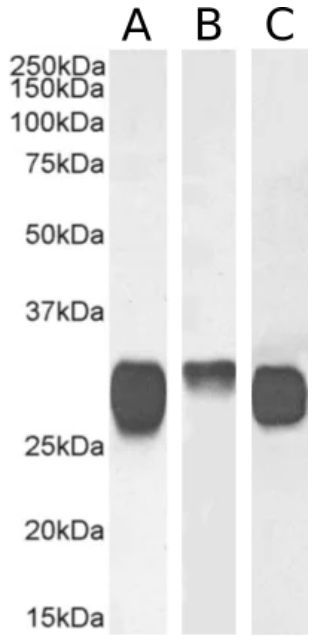


Flow Cytometry - Anti-HLA DQA2 antibody [F3.3] (ab288433)

HLA DQA2 Flow Cytometry staining using mouse Anti-HLA DQA2 antibody

The image data was generated using the chimeric rabbit version of the same antibody clone
Flow cytometric analysis of HLA DQA2 in Human leukocytes using ab288433 at 10µg/ml.

Human Leukocytes were stained with an isotype control (panel A) or ab288433 at a concentration of 1 µg/ml for 30 mins at RT. After washing, bound antibody was detected using a AF488 conjugated donkey anti-rabbit antibody and cells analysed on a FACSCanto flow-cytometer.



Western blot - Anti-HLA DQA2 antibody [F3.3] (ab288433)

HLA DQA2 Western blot staining using mouse Anti-HLA DQA2 antibody

The image data was generated using the chimeric rabbit version of the same antibody clone
Ran on 10% SDS PAGE gel.

All lanes:
Western blot - Anti-HLA DQA2 antibody [F3.3] (ab288433) at 0.01 µg/mL

Lane 1:
Human spleen lysate at 35 µg

Lane 2:
Human tonsil lysate at 35 µg

Lane 3:
Daudi cell lysate at 35 µg

Secondary

All lanes:
anti-rabbit secondary antibody

Predicted band size: 28 kDa

Observed band size: 30 kDa

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