Datasheet for ABIN6243691

anti-HLA-DQA1 antibody (C-Term)

4 Images

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Overview

Quantity:	400 µL
Target:	HLA-DQA1
Binding Specificity:	AA 188-222, C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HLA-DQA1 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (IF)

Product Details

Immunogen:	This HLA-DQA1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 188-222 amino acids from the C-terminal region of human HLA-DQA1.
Clone:	RB52862
Isotype:	Ig Fraction
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	HLA-DQA1
Alternative Name:	HLA-DQA1 (HLA-DQA1 Products)

Target Details

Background:	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.
Molecular Weight:	27805
UniProt:	P01909
Pathways:	TCR Signaling, Cancer Immune Checkpoints, Human Leukocyte Antigen (HLA) in Adaptive Immune Response

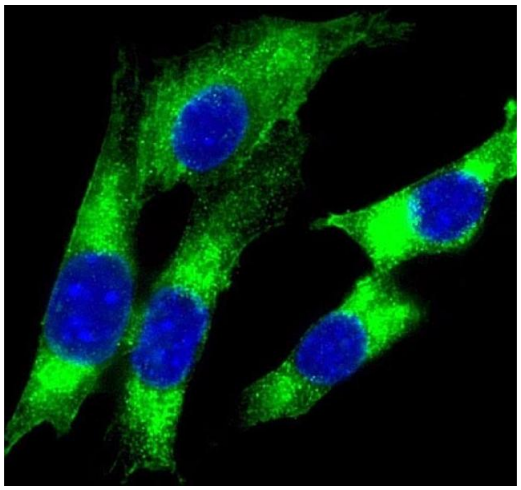
Application Details

Application Notes:	IF: 1:25. WB: 1:2000. WB: 1:8000. FC: 1:25
Restrictions:	For Research Use only

Handling

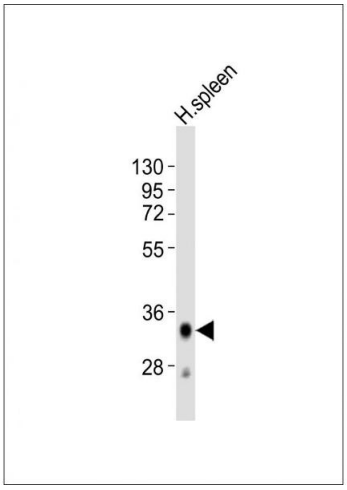
Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Expiry Date:	6 months

Images



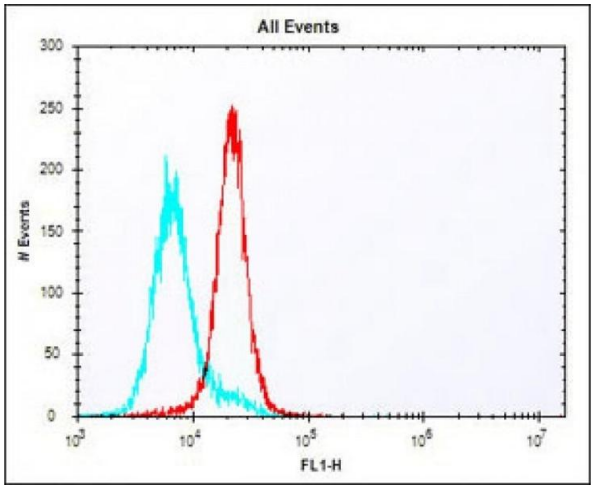
Immunofluorescence

Image 1. Immunofluorescent analysis of 4 % paraformaldehyde-fixed, 0.1 % Triton X-100 permeabilized NIH/3T3 (mouse embryonic fibroblast cell line) cells labeling HLA-DQA1 with (ABIN6243691 and ABIN6578148) at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on NIH/3T3 cell line. The nuclear counter stain is DI (blue).



Western Blotting

Image 2. Anti-HLA-DQA1 Antibody (C-term)at 1:2000 dilution + human spleen lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 28 kDa Blocking/Dilution buffer: 5 % NFDM/TBST.



Flow Cytometry

Image 3. Overlay histogram showing K562 cells stained with (ABIN6243691 and ABIN6578148) (red line). The cells were fixed with 2 % paraformaldehyde (10 min) and then permeabilized with 90 % methanol for 10 min. The cells were then icubated in 2 % bovine serum albumin to block non-specific protein-protein interactions followed by the antibody ((ABIN6243691 and ABIN6578148), 1:25 dilution) for 60 min at 37 °C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37 °C. Isotype control antibody (blue line) was rabbit IgG1 (1 µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

Please check the product details page for more images. Overall 4 images are available for ABIN6243691.