

Mouse Anti-Human HLA-DQA1 clonal Antibody

Mouse, Monoclonal (HLA-DQA1)

Cat. No. DMAB2509MH

Lot. No. (See product label)

PRODUCT INFORMATION

Antigen Description: HLA-DQA1 belongs to the HLA class II alpha chain paralogues. The class II molecule is a heterodimer consisting of an alpha (DQA) and a beta chain (DQB), 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. The alpha chain is approximately 33-35 kDa. It is encoded by 5 exons. Within the DQ molecule both the alpha chain and the beta chain contain the polymorphisms specifying the peptide binding specificities, resulting in up to four different molecules.

Isotype: IgG_{2a}

Specificity: Recognizes a monomorphic epitope present on HLA-DQ molecules of the human class II major histocompatibility complex (MHC). Anti-HLA-DQ does not react with HLA-DR or HLA-DP molecules. The HLA-DQ antigen is present on approximately 10% of peripheral blood lymphocytes. This antibody reacts with virtually all B-cell lines and come tissue macrophages and dendritic cells.

Clone: 2b4

Format: FITC, Liquid

Host animal: Mouse

Source: Tissue culture

Purification: Fluorescein which has a maximum absorbance at 492nm and an emission maximum at 518nm has been covalently attached to anti-human HLA-DQ and purified to assure optimal fluorochrome/protein (F/P) molar ratios. This fluorochrome/protein molar ratio of this conjugate is 6.04.

Application: May be used to identify the expression of HLA-DQ gene products. We recommend using 1µg to stain 1.0 x 10⁶ cells in flow cytometric applications. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded. Centrifuge before opening to ensure complete recovery of vial contents.

PACKAGING

Concentration: 100µg/ml (OD280nm)

Buffer: 0.01M PBS, pH 7.2, containing 2.0mM EDTA and 1.0% BSA

Preservative: 0.1% Sodium azide

Storage: Store at 2–8°C. **DO NOT FREEZE!**

Warning: This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1 – 1.0 %. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

ANTIGEN GENE INFORMATION

Gene Name: [HLA-DQA1 major histocompatibility complex, class II, DQ alpha 1 \[Homo sapiens \]](#)

Official Symbol: HLA-DQA1

Synonyms: CD; GSE; DQ-A1; CELIAC1; HLA-DQA; FLJ-27088; FLJ27328; MGC149527; HLA-DQA1; HLA class II histocompatibility antigen, DQ alpha 1 chain; HLA-DQA; DC-alpha; DC-1 alpha chain; MHC HLA-DQ alpha; MHC class II DQA1; MHC class II antigen; leucocyte antigen DQA1; MHC class II HLA-DQ-alpha-1; leucocyte antigen alpha chain; MHC class II surface glycoprotein; MHC class II HLA-D alpha glycoprotein; HLA class II histocompatibility antigen, DQ(W3) alpha chain

GeneID: [3117](#)

mRNA Refseq: [NM_019111](#)

Protein Refseq: [NP_061984](#)

MIM: [146880](#)

Chromosome Location: 6p21.3

UniProt ID: P01909

Pathway: Allograft rejection, organism-specific biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Downstream TCR signaling, organism-specific biosystem; Generation of second messenger molecules, organism-specific biosystem; Interferon Signaling, organism-specific biosystem; Leishmaniasis, organism-specific biosystem; PD-1 signaling, organism-specific biosystem; Rheumatoid arthritis, organism-specific biosystem; Signaling in Immune system, organism-specific biosystem; TCR signaling, organism-specific biosystem; Viral myocarditis, organism-specific biosystem

Function: MHC class II receptor activity

REFERENCES

- Ettinger, R.A., (1998), "Exceptional stability of the HLA-DQA1 *0102/DQB1*0602 alpha beta protein dimer, the class II MHC Molecule Associated with protection from Insulin-dependent diabetes mellitus", J. Immunology, 161: 6439-6445
- Shookster, L., et al., (1987), "Monoclonal antibody 1a3 recognizes a monomorphic epitope unique to DQ molecules", Human Immunol. 20(1): 59-70