

Mouse Anti-HLA-DQ (MHC II) [HLADQ1]: MC0061

Intended Use: For Research Use Only

Description: Recognizes a DQ antigen, which is a dimer of 60kDa. 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 (APC: B Lymphocytes, dendritic cells, macrophages). The alpha chain is approximately 33-35kDa. It is encoded by 5 exons; exon 1 encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, and exon 4 encodes the transmembrane domain and the cytoplasmic tail. 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. Typing for these polymorphisms is routinely done for bone marrow transplantation. This MAb strongly blocks cytotoxicity activity of T4-positive cytotoxic T cell clones.

Specifications

Clone: HLADQ1
 Source: Mouse
 Isotype: IgG1
 Reactivity: Human
 Immunogen: Human peripheral blood mononuclear cells
 Localization: Membrane
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, Flow Cyt., ICC/IF
 Package:

| Description | Catalog No. | Size |
|---------------------------------------|-------------|------|
| HLA-DQ (MHC II) [HLADQ1] Concentrated | MC0061 | 1 ml |

IHC Procedure*

Positive Control Tissue: Raji cells. Tonsil, lymph node
 Concentrated Dilution: 50-200
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.

References

1. Ex-vivo whole blood secretion of interferon (IFN)- γ and IFN- γ -inducible protein-10 measured by enzyme-linked immunosorbent assay are as sensitive as IFN- γ enzyme-linked immunospot for the detection of gluten-reactive T cells in human leucocyte antigen (HLA)-DQ2·5(+)-associated coeliac disease. Ontiveros N, et al. Clin Exp Immunol. Feb;175(2):305-15, 2014.
2. Innate immune activity conditions the effect of regulatory variants upon monocyte gene expression. Fairfax BP et al. Science 343:1246949, 2014.
3. Association of HLA-DQ gene with bowel transit, barrier function, and inflammation in irritable bowel syndrome with diarrhea. Vazquez-Roque MI, et al. Am J Physiol Gastrointest Liver Physiol. Dec 1;303(11):G1262-9, 2012.
4. Salmonella regulates polyubiquitination and surface expression of MHC class II antigens. Lapaque N et al. Proc Natl Acad Sci U S A 106:14052-7, 2009.
5. Characterization of monoclonal antibodies against cell surface molecules associated with cytotoxic activity of natural and activated killer cells and cloned CTL lines. Spits H; et al. Hybridoma, 2(4):423-37, 1983.