

### HLA-DRA (PN0157) Nb-FC recombinant antibody

Catalog No: YA0599

Reactivity: Human

**Applications:** ELISA

Target: HLA-DRA

Gene Name: HLA-DRA HLA-DRA1

Protein Name: HLA class II histocompatibility antigen, DR alpha chain (MHC class II antigen

DRA)

Human Gene Id: 3122

**Human Swiss Prot** 

No:

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Immunogen: Purified recombinant Human HLA-DRA

P01903

**Specificity:** This recombinant monoclonal antibody can detects endogenous levels of HLA-

DRA protein.

Formulation: Phosphate-buffered solution

**Source:** Camel, chimeric fusion of Nanobody (VHH) and mouse IgG1 Fc domain,

recombinantly produced from 293F cell

**Dilution:** ELISA 1:5000-100000

**Purification:** Recombinant Expression and Affinity purified

**Concentration:** Please check the information on the tube

Storage Stability: -15°C to -25°C/1 year(Avoid freeze / thaw cycles)

**Cell Pathway:** Cell adhesion molecules (CAMs);Antigen processing and

presentation;Hematopoietic cell lineage;Intestinal immune network for IgA production;Type I diabetes mellitus;Asthma;Autoimmune thyroid disease;Sy



### **Background:**

HLA-DRA is one of the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha and a beta chain, 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 33-35 kDa and its gene contains 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. DRA does not have polymorphisms in the peptide binding part and acts as the sole alpha chain for DRB1, DRB3, DRB4 and DRB5. [provided by RefSeq, Jul 2008]

#### **Function:**

disease:Genetic variations in HLA-DRA are associated with susceptibility to hepatitis B virus infection (HBV infection) [MIM:610424]. Approximately one third of all cases of cirrhosis and half of all cases of hepatocellular carcinoma can be attributed to chronic HBV infection. HBV infection may result in subclinical or asymptomatic infection, acute self-limited hepatitis, or fulminant hepatitis requiring liver transplantation.,polymorphism:The following alleles of DRA are known: DRA\*0101 and DRA\*0102. The sequence shown is that of DRA\*0101.,similarity:Belongs to the MHC class II family.,similarity:Contains 1 Iglike C1-type (immunoglobulin-like) domain.,subunit:Heterodimer of an alpha chain and a beta chain.,

# Subcellular Location:

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein. Early endosome membrane; Single-pass type I membrane protein. Late endosome membrane; Single-pass type I membrane protein. Lysosome membrane; Single-pass type I membrane protein. Autolysosome membrane; Single-pass type I membrane protein. The MHCII complex transits through a number of intracellular compartments in the endocytic pathway until it reaches the cell membrane for antigen presentation (PubMed:9075930, PubMed:18305173). Component of immunological synapses at the interface between T cell and APC (PubMed:15322540, PubMed:29884618).

### **Expression:**

Expressed in professional APCs: macrophages, dendritic cells and B cells (at protein level) (PubMed:31495665, PubMed:1532254, PubMed:23783831). Expressed in thymic epithelial cells (at protein level) (PubMed:23783831).

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