

Rabbit HLA-DRA Polyclonal Antibody | anti-HLA-DRA antibody

HLA-DRA Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326243	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

HLA-DRA; Polyclonal Antibody; HLA-DRA Antibody; CD; CELIAC 1; CELIAC1; DP beta 1 chain; DP(W4) beta chain; DPB1; DPB1_HUMAN; DQ A1; DRB1; DRB4; FLJ27088; FLJ27328; GSE; HLA class II histocompatibility antigen; HLA class II histocompatibility antigen DR 1 beta; HLA class II histocompatibility antigen DR alpha; HLA class II histocompatibility antigen DR alpha chain; HLA DP histocompatibility type beta 1 subunit; HLA DP1B; HLA DPB1; HLA DQA; HLA DQA1; HLA DQB; HLA DQB1; HLA DR1B; HLA DR3B; HLA DR4B; HLA DRA; HLA DRA1; HLA DRB1; HLA DRB3; HLA DRB4; HLA DRB5; HLA-DPB1; IDDM 1; IDDM1; Major histocompatibility complex class II DP beta 1; Major histocompatibility complex class II DQ alpha 1; Major histocompatibility complex class II DQ beta 1; Major histocompatibility complex class II DR alpha; Major histocompatibility complex class II DR beta 1; Major histocompatibility complex class II DR beta 3; Major histocompatibility complex class II DR beta 4; Major histocompatibility complex class II DR beta 5; MGC117330; MHC class II antigen DPB1; MHC class II antigen DRA; MHC class II HLA DQ alpha 1; MHC class II HLA DR beta 1; MHC class II HLA DR beta 3; MHC DPB1; MHC DQ beta; MHC HLA DPB1; MHC HLA DQ alpha; anti-HLA-DRA antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	HLA-DRA antibody detects endogenous levels of total HLA-DRA
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	254
Applicable Applications for anti-HLA-DRA antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HLA-DRA
Subcellular Location	Cell Membrane. Endoplasmic Reticulum Membrane. Golgi Apparatus > Trans-Golgi Network Membrane. Endosome Membrane. Lysosome Membrane. Late Endosome Membrane. The MHC class II complex transits through a number of intracellular compartments in the endocytic pathway until it reaches the cell membrane for antigen presentation.
Predicted Cross Reactivity	Horse
Similarity	Horse (83%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of extracts of Jurkat, using HLA-DRA antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA326243 staining HEPG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600 was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326243 at 1/100 staining Human gastric tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-HLA-DRA antibody	Description: 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: 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. Subunit Structure: Heterodimer of an alpha and a beta subunit; also referred as MHC class II molecule. In the endoplasmic reticulum (ER) it forms a heterononamer; 3 MHC class II molecules bind to a CD74 homotrimer (also known as invariant chain or HLA class II histocompatibility antigen gamma chain). In the endosomal/lysosomal system; CD74 undergoes sequential degradation by various proteases; leaving a small fragment termed CLIP on each MHC class II molecule. MHC class II molecule interacts with HLA_DM, and HLA_DO in B-cells, in order to release CLIP and facilitate the binding of antigenic peptides. Interacts with Epstein-Barr virus BZLF2/gp42. Post-translational Modifications: Ubiquitinated by MARCH1 or MARCH8 at Lys-244 leading to down-regulation of MHC class II. When associated with ubiquitination of the beta subunit of HLA-DR: HLA-DRB4 'Lys-254', the down-regulation of MHC class II may be highly effective. Similarity: Belongs to the MHC class II family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	52426774
NCBI GeneID	3122
NCBI Accession #	NP_061984.2
NCBI GenBank Nucleotide #	NM_019111.4
UniProt Accession #	P01903; Q30160; Q6IAZ1; Q861I2; Q9TP70; A2BET4
Molecular Weight	Observed: 29 kDa Predicted: 29 kDa
NCBI Official Full Name	HLA class II histocompatibility antigen, DR alpha chain
NCBI Official Synonym Full Names	major histocompatibility complex, class II, DR alpha
NCBI Official Symbol	HLA-DRA
NCBI Official Synonym Symbols	HLA-DRA1

NCBI Protein Information	HLA class II histocompatibility antigen, DR alpha chain
UniProt Protein Name	HLA class II histocompatibility antigen, DR alpha chain
UniProt Gene Name	HLA-DRA
UniProt Synonym Gene Names	HLA-DRA1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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