HLA-DRB5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HLA-DRB5, Polyclonal Antibody
Full Product Name	HLA-DRB5 (HLA Class II Histocompatibility Antigen, DR beta 5 Chain, DR beta-5, DR2-beta-2, Dw2, MHC Class II Antigen DRB5) (MaxLight 490)
Product Gene Name	anti-HLA-DRB5 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human HLA-DRB5.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo
Molecular Weight	30,056 Da
OMIM	604776
3D Structure	ModBase 3D Structure for Q30154
Immunogen	Full length human HLA-DRB5, aa1-266 (NP_002116.2).
Immunogen Sequence	MVCLKLPGGSYMAKLTVTLMVLSSPLALAGDTRPRFLQQDKYECHFFNGTERVRFLHRDIYNQEEDLRFDSDVGEYRAVTELGRPDAEYWNSQKDFLED
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-HLA-DRB5 antibody	Antibodies; HLA
Applications Tested/Suitable for anti-HLA-DRB5 antibody	Western Blot (WB)
Application Notes for anti-HLA-DRB5 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-HLA-DRB5 antibody	MaxLight490 is a new Blue-Green photostable dye conjugate comparable to DyLight488, Alexa Fluor488 and offers better labeling efficiency, brighter i

Other Notes	Small volumes of anti-HLA-DRB5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If ne
Searchable Terms for HLA-DRB5 purchase	MBS6381315 is an antibody targeting HLA-DRB5. Also known as HLA-DRB5 (HLA Class II Histocompatibility Antigen, DR beta 5 Chain, DR beta-5, DF

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HLA-DRB5. It may not necessarily be applicable to this product.

NCBI GI #	18641375
NCBI GeneID	3127
NCBI Accession #	NP_002116.2
UniProt Primary Accession #	Q30154
UniProt Secondary Accession #	O00157; O00283; O46700; Q29703; Q29787; Q29788; Q30126; Q30150; Q30199; B2RBV6; C7C4X3
UniProt Related Accession #	Q30154; Q9TQE0
GenBank Nucleotide #	NM_002125
NCBI Official Full Name	major histocompatibility complex, class II, DR beta 5
NCBI Official Synonym Full Names	major histocompatibility complex, class II, DR beta 5
NCBI Official Symbol	HLA-DRB5
UniProt Protein Name	HLA class II histocompatibility antigen, DR beta 5 chain
UniProt Synonym Protein Names	DR beta-5; DR2-beta-2; Dw2; MHC class II antigen DRB5
Protein Family	HLA class II histocompatibility antigen
UniProt Gene Name	HLA-DRB5
NCBI Protein Information	major histocompatibility complex, class II, DR beta 5
NCBI Summary for HLA-DRB5	HLA-DRB5 belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DRA) and a beta (DRB) 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 beta chain is approximately 26-28 kDa and its gene contains 6 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, exon 4 encodes the transmembrane domain and exon 5 encodes the cytoplasmic tail. Within the DR molecule the beta chain contains all the polymorphisms specifying the peptide binding specificities. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. DRB1 is expressed at a level five times higher than its paralogues DRB3, DRB4 and DRB5. The presence of DRB5 is linked with allelic variants of DRB1, otherwise it is omitted. There are 4 related pseudogenes: DRB2, DRB6, DRB7, DRB8 and DRB9. [provided by RefSeq, Jul 2008]

UniProt Comments for HLA-DRB5	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.
Research Articles on HLA-DRB5	**1.** Case-control study in Han Chinese from the southwest of the country suggests that risk of ALS is increased by the AA genotype at rs9268856 in the HLA-DRA/HLA-DRB5 gene, but not by the SNPs rs9268877 in HLA-DRA/HLA-DRB5, rs1980493 in BTNL2 or rs302668 in RAB38/CTSC
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/hla-drb5/6381315