Datasheet for ABIN7155610

anti-HLA-DRB4 antibody (AA 30-227) (Biotin)

Go to Product page

Overview

Quantity:	100 µg
Target:	HLA-DRB4
Binding Specificity:	AA 30-227
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HLA-DRB4 antibody is conjugated to Biotin
Application:	ELISA

Product Details

Immunogen:	Recombinant Human HLA class II histocompatibility antigen, DR beta 4 chain protein (30-227AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	HLA-DRB4
Alternative Name:	HLA-DRB4 (HLA-DRB4 Products)
Background:	Background: 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. Aliases: DR 4 antibody, DR beta 4 chain antibody, DR4 antibody, DRB1 transplantation antigen antibody, DRB4 antibody, DRB4_HUMAN antibody, HLA class II histocompatibility antigen antibody, HLA class II histocompatibility antigen DR beta 4 chain antibody, HLA-DRB4 antibody, Human leucocyte antigen DRB4 antibody, Leukocyte antigen antibody, Major histocompatibility complex class II DR beta 4 antibody, MHC class II antigen DRB4 antibody, MHC class II antigen HLA DR beta antibody, MHC class2 antigen antibody, MHC HLA DR-beta chain antibody
UniProt:	P13762
Pathways:	TCR Signaling, Positive Regulation of Peptide Hormone Secretion, Production of Molecular Mediator of Immune Response, Human Leukocyte Antigen (HLA) in Adaptive Immune Response

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.