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Datasheet for ABIN7155586

anti-HLA-DPB1 antibody (AA 30-225) (Biotin)

Overview

Quantity:	100 µg
Target:	HLA-DPB1
Binding Specificity:	AA 30-225
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HLA-DPB1 antibody is conjugated to Biotin
Application:	ELISA

Product Details

Immunogen:	Recombinant Human HLA class II histocompatibility antigen, DP beta 1 chain protein (30-225AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	HLA-DPB1
Alternative Name:	HLA-DPB1 (HLA-DPB1 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: beta1 domain MHC class II HLA DPB antibody, class II histocompatibility antigen, DP(W4) beta chain antibody, class II HLA beta chain antibody, DP beta 1 chain antibody, DP(W4) beta chain antibody, DPB1 antibody, DPB1_HUMAN antibody, HLA class II histocompatibility antigen antibody, HLA class II histocompatibility antigen, DP beta 1 chain antibody, HLA class II histocompatibility antigen, DP(W4) beta chain antibody, HLA DP14-beta chain antibody, HLA-DP antibody, HLA-DP histocompatibility type, beta-1 subunit antibody, HLA-DP1B antibody, HLA-DPB antibody, HLA-DPB1 antibody, major histocompatibility complex class II antigen beta chain antibody, major histocompatibility complex, class II, DP beta 1 antibody, MHC class II antigen beta chain antibody, MHC class II antigen DP beta 1 chain antibody, MHC class II antigen DPB1 antibody, MHC class II antigen DPbeta1 antibody, MHC class II HLA-DP-beta-1 antibody, MHC class II HLA-DRB1 antibody, MHC HLA DPB1 antibody

Target Details

UniProt: [P04440](#)

Pathways: [TCR Signaling, Cancer Immune Checkpoints, 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.