Datasheet for ABIN7184457

anti-HLA-DPA1 antibody (N-Term)

1 Image

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Overview

Quantity:	100 µL
Target:	HLA-DPA1
Binding Specificity:	N-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HLA-DPA1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	Synthesized peptide derived from N-terminal of Human HA2Q.
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Target Details

Target:	HLA-DPA1
Alternative Name:	HLA-DPA1 (HLA-DPA1 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. Lawrance S.K., Nucleic Acids Res. 13:7515-7528(1985). Gustafsson K., J. Biol. Chem. 262:8778-8786(1987). Young J.A., Hum. Immunol. 23:37-44(1988). Aliases: HLA-DPA1 antibody, HLA-DP1A antibody, HLASBHLA class II histocompatibility antigen antibody, DP alpha 1 chain antibody, DP(W3) antibody, DP(W4) antibody, HLA-SB alpha chain antibody, MHC class II DP3-alpha antibody, MHC class II DPA1 antibody
UniProt:	P20036
Pathways:	TCR Signaling, Cancer Immune Checkpoints, Human Leukocyte Antigen (HLA) in Adaptive

Target Details

Immune Response

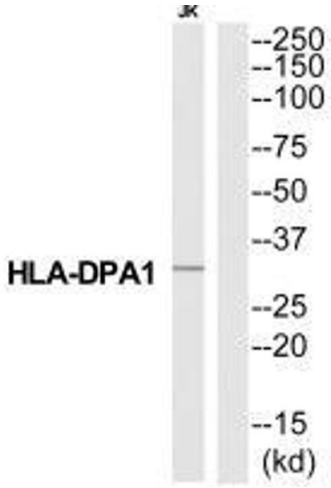
Application Details

Application Notes:	WB:1:500-1:3000,
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: 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.

Images



Western Blotting

Image 1. Western blot analysis of extracts from Jurkat cells, using HA2Q antibody.