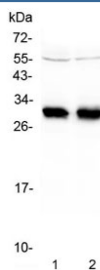


HLA-DRB1 Antibody Rabbit Polyclonal (RQ4649)

Catalog No.	Formulation	Size
RQ4649	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P13761
Applications	Western Blot : 0.5-1ug/ml
Limitations	This HLA-DRB1 antibody is available for research use only.



HLA-DRB1 Antibody Rabbit Polyclonal western blot analysis of human samples. Western blot testing was performed using HLA-DRB1 Antibody Rabbit Polyclonal at 0.5 ug/ml. Lane 1: human Raji cell lysate (lot 1), Lane 2: human Raji cell lysate (lot 2). A band is detected at approximately 30 kDa, consistent with the predicted molecular weight of HLA-DR beta chain / HLA-DRB1. A faint higher molecular weight band near ~55 kDa is also visible and may represent dimeric or incompletely reduced HLA-DR complexes that can persist under SDS-PAGE conditions for MHC class II proteins.

Description

Major histocompatibility complex class II DR beta 1 (HLA-DRB1) is a transmembrane glycoprotein encoded by the HLA-DRB1 gene that forms the beta chain of the HLA-DR antigen receptor complex involved in peptide antigen presentation to CD4-positive T lymphocytes. HLA-DRB1 Antibody Rabbit Polyclonal targets this immune receptor component and supports detection of HLA-DR beta chain expression in research studies examining antigen-presenting cells and immune activation pathways. HLA-DR belongs to the major histocompatibility complex class II family of cell surface receptors responsible for presenting processed extracellular peptide antigens to helper T lymphocytes. The functional receptor is composed of two chains: an alpha chain encoded by HLA-DRA and a beta chain encoded primarily by HLA-DRB1.

Together these chains form a heterodimeric complex that binds peptides generated within endosomal antigen-processing compartments and displays them on the cell surface for recognition by T-cell receptors. Through this mechanism, HLA-DR molecules play a central role in adaptive immune responses and immune surveillance. Expression of HLA-DR is characteristic of professional antigen-presenting cells including B lymphocytes, macrophages, dendritic cells, and activated monocytes. Because these immune cell populations regulate antigen presentation and immune activation, HLA-DRB1 expression is frequently studied in immunology, inflammation, and tumor immunology research. The HLA-DRB1 gene is highly polymorphic and exhibits extensive allelic diversity across human populations, contributing to variation in peptide-binding specificity and immune recognition. Numerous HLA-DRB1 variants have been associated with susceptibility to autoimmune diseases and immune-mediated disorders, including rheumatoid arthritis, multiple sclerosis, and type 1 diabetes. As a result, antibodies targeting HLA-DRB1 are widely used to investigate immune cell activation, antigen presentation pathways, and immune infiltration within tissues. A rabbit polyclonal antibody recognizing HLA-DRB1 can detect the HLA-DR beta chain in research applications examining immune cell populations, antigen-presenting cell biology, and regulation of adaptive immune responses.

Application Notes

Optimal dilution of the HLA-DRB1 Antibody Rabbit Polyclonal should be determined by the researcher.

Immunogen

Amino acids TERVQFLERLFYNQEEFVRFDSDVGEYRAVTELGR were used as the immunogen for the HLA-DRB1 antibody.

Storage

After reconstitution, the HLA-DRB1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.

Alternate Names

HLA-DR beta antibody, HLA-DRB1 antibody, MHC class II DR beta antibody, HLA class II histocompatibility antigen DR beta antibody