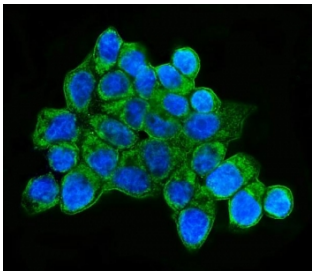
HLA-DQB1 Antibody (RQ4155)

Catalog No.	Formulation	Size
RQ4155	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

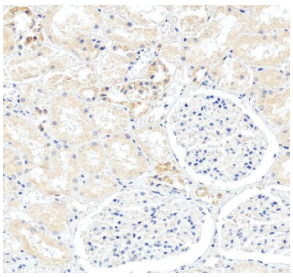
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
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	P01920
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence : 5ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This HLA-DQB1 antibody is available for research use only.



Immunofluorescent staining of FFPE human MCF7 cells with HLA-DQB1 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.

Western blot testing of human SK-OV-3 cell lysate with HLA-DQB1 antibody at 0.5ug/ml. Predicted molecular weight ~30 kDa.



IHC staining of FFPE human kidney tissue with HLA-DQB1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

HLA-DQB1 is a gene encoding the beta chain of the HLA-DQ molecule, a member of the major histocompatibility complex (MHC) class II family. These molecules are expressed on the surface of antigen-presenting cells, including B lymphocytes, dendritic cells, and macrophages. HLA-DQ heterodimers, composed of an alpha chain (encoded by HLA-DQA1) and a beta chain (encoded by HLA-DQB1), present peptides derived from extracellular proteins to CD4+ T cells. This function is central to the adaptive immune response. A HLA-DQB1 antibody is widely used to investigate antigen presentation and immune regulation.

Polymorphisms within the HLA-DQB1 gene are associated with susceptibility to autoimmune diseases, such as type 1 diabetes, celiac disease, and multiple sclerosis. These genetic variations influence peptide-binding specificity and T-cell activation, highlighting the critical role of HLA-DQB1 in shaping immune tolerance and autoimmunity. Researchers employ a HLA-DQB1 antibody to explore how differences in protein expression and function contribute to disease pathogenesis.

In addition to its importance in autoimmunity, HLA-DQB1 plays a role in transplantation biology, as compatibility of MHC class II alleles affects graft acceptance and rejection. Using an HLA-DQB1 antibody enables detailed studies of antigen presentation, T-cell responses, and immune recognition in both health and disease contexts.

NSJ Bioreagents provides a high-quality HLA-DQB1 antibody validated for applications such as flow cytometry, western blot, and immunohistochemistry. Choosing a reliable HLA-DQB1 antibody ensures accurate detection and reproducible results in studies of adaptive immunity and autoimmune disease mechanisms.

Application Notes

Optimal dilution of the HLA-DQB1 antibody should be determined by the researcher.

Immunogen

Amino acids DAEYWNSQKEVLERTRAELDTVCRHNYQLELRTTLQRR were used as the immunogen for the HLA-DQB1 antibody.

Storage

After reconstitution, the HLA-DQB1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.