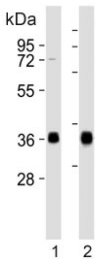
# HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody (F54763)

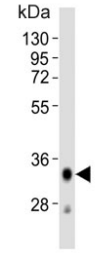
| Catalog No. | Formulation | Size |
|---|---|---|
| F54763-0.4ML | In 1X PBS, pH 7.4, with 0.09% sodium azide | 0.4 ml |
| F54763-0.08ML | In 1X PBS, pH 7.4, with 0.09% sodium azide | 0.08 ml |

**Bulk quote request**

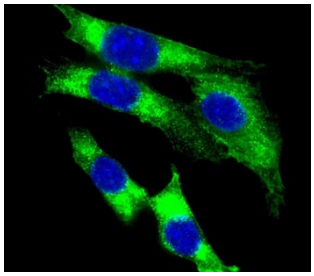
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit Ig |
| **Purity** | Antigen affinity purified |
| **UniProt** | P01909 |
| **Applications** | Western blot: 1:2000-1:8000<br>Flow cytometry: 1:25 (1x10e6 cells)<br>Immunofluorescence: 1:25 |
| **Limitations** | This HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody is available for research use only. |



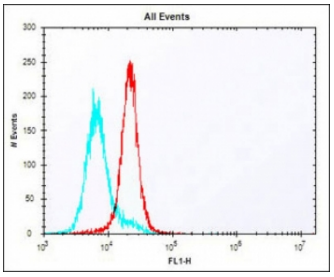

HLA-DQA1 Antibody in Human Daudi and Raji B Lymphoma Cells WB. Western blot testing of HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody with human 1) Daudi and 2) Raji B lymphoma cell lysate. A strong, discrete band is detected at approximately 36 kDa in both samples, consistent with the expected molecular weight of HLA-DQA1.




HLA-DQA1 Antibody in Human Spleen WB. Western blot testing of HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody with human spleen tissue lysate. A prominent band is detected at approximately 33-34 kDa, consistent with the expected molecular weight of HLA-DQA1.



HLA-DQA1 Antibody in Mouse NIH 3T3 Fibroblast Cells IF. Immunofluorescence staining of fixed and permeabilized mouse NIH 3T3 fibroblast cells with HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody (green) and DAPI nuclear stain (blue). Strong immunoreactivity is distributed throughout the cytoplasm with a granular and reticular appearance and relative exclusion from the nuclei.




HLA-DQA1 Antibody in Human K562 Myelogenous Leukemia Cells FACS. Flow cytometry testing of fixed and permeabilized human K562 myelogenous leukemia cells with HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody. The antibody-stained population (red) shows a clear fluorescence shift relative to the isotype control (blue), demonstrating detection of HLA-DQA1.

## Description

HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody targets HLA-DQA1, a major histocompatibility complex (MHC) class II protein that forms the alpha chain of the HLA-DQ heterodimer. HLA-DQ participates in adaptive immune recognition by presenting processed antigenic peptides to CD4-positive T lymphocytes. The HLA-DQA1 alpha chain associates non-covalently with an HLA-DQB beta chain to produce a functional cell-surface HLA-DQ molecule capable of binding and displaying peptides for T cell surveillance.

HLA-DQA1 is located within the MHC region on chromosome 6 and is highly polymorphic. The extracellular domains of the HLA-DQ alpha and beta chains together form the peptide-binding groove, with sequence variation contributing to differences in the repertoire of peptides that can be presented. HLA-DQA1 alleles combine with HLA-DQB1 alleles to generate diverse HLA-DQ heterodimers, and particular alpha/beta combinations are strongly associated with susceptibility or resistance to several immune-mediated diseases.

HLA-DQ molecules are expressed predominantly by professional antigen-presenting cells such as B lymphocytes, dendritic cells and macrophages. Proteins entering the endosomal pathway are processed into peptides that can be loaded onto MHC class II molecules following regulated removal of the invariant-chain-derived CLIP peptide. Peptide-loaded HLA-DQ complexes are subsequently transported to the plasma membrane, where they can interact with T cell receptors and the CD4 co-receptor to initiate antigen-specific immune responses.

Because HLA-DQA1 encodes an individual structural component of the HLA-DQ complex, an HLA-DQA1 Antibody provides a more chain-focused approach than antibodies recognizing the assembled HLA-DQ antigen or shared MHC class II determinants. HLA-DQA1 is an important research target in immunogenetics, antigen presentation, transplantation and autoimmune disease. Its extensive polymorphism and pairing with HLA-DQB proteins are particularly relevant to studies examining how inherited HLA variation influences peptide presentation and CD4 T cell recognition.

This antigen affinity-purified rabbit polyclonal antibody was generated against recombinant human protein. NSJ Bioreagents provides this HLA-DQA1 Antibody for research into HLA-DQ biology, MHC class II antigen presentation and adaptive immunity. An HLA-DQ Alpha 1 Chain Antibody can support investigation of the alpha-chain component of HLA-DQ and its role in antigen-specific immune recognition.

Explore our Immunology Antibodies page for additional reagents targeting MHC molecules, antigen presentation and adaptive immune responses.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the HLA-DQA1 Antibody / HLA-DQ Alpha 1 Chain Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

Recombinant human protein was used as the immunogen for the HLA-DQA1 antibody.

## Storage

Aliquot the HLA-DQA1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

## Alternate Names

HLA-DQA1 antibody, HLA-DQ Alpha 1 Chain antibody, HLA-DQ Alpha Chain antibody, MHC Class II DQ Alpha antibody, DQA1 antibody


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