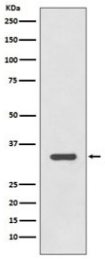
HLA-DRA Antibody for WB [clone FGI-8] (RQ4987)

Catalog No.	Formulation	Size
RQ4987	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

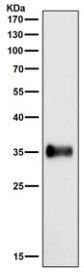
Recombinant RABBIT MONOCLONAL

Bulk quote request

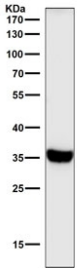
Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	FGI-8
Purity	Affinity purified
UniProt	P01903
Applications	Western Blot : 1:1000-1:5000 Immunohistochemistry (FFPE) : 1:50-1:200 Immunofluorescence : 1:50-1:200
Limitations	This HLA-DR antibody is available for research use only.



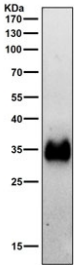
HLA-DRA Antibody for WB testing of human Raji cell lysate by western blot. Recombinant rabbit monoclonal HLA-DRA antibody (clone FGI-8) detects a band at approximately 34 kDa, consistent with the predicted molecular weight of Human leukocyte antigen DR alpha / HLA-DRA, the HLA-DR alpha chain of the MHC class II antigen presentation complex.



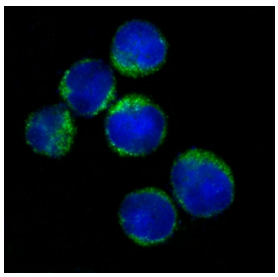
Western blot testing of human Ramos cell lysate with HLA-DR antibody. Expected molecular weight ~34 kDa.



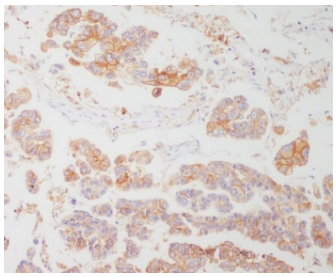
Western blot testing of human K562 cell lysate with HLA-DR antibody. Expected molecular weight ~34 kDa.



HLA-DRA Antibody for WB testing of rat spleen tissue lysate by western blot. A band is detected at approximately 34 kDa, consistent with the predicted molecular weight of Human leukocyte antigen DR alpha / HLA-DRA, the HLA-DR alpha chain of the MHC class II antigen presentation complex expressed in immune cells present in spleen tissue.



Immunofluorescent staining of human Raji cells with HLA-DR antibody (green) and DAPI nuclear stain (blue).



IHC staining of FFPE human lung tissue with HLA-DR antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Human leukocyte antigen DR alpha (HLA-DRA) is a major histocompatibility complex class II protein encoded by the HLA-DRA gene and forms the alpha chain of the HLA-DR antigen receptor responsible for peptide antigen presentation to CD4-positive T lymphocytes. HLA-DRA Antibody for WB enables detection of this MHC class II protein by western blot, allowing analysis of HLA-DR alpha expression in immune cells and experimental systems studying antigen presentation pathways.

HLA-DR is a heterodimeric receptor composed of the HLA-DRA alpha chain paired with a beta chain encoded by HLA-DRB genes. Together these two chains form the HLA-DR antigen complex, a key component of the MHC class II antigen

presentation pathway. This receptor binds peptides derived from extracellular proteins processed in endosomal compartments and presents them at the cell surface for recognition by CD4-positive helper T lymphocytes. Through this mechanism, the HLA-DR complex plays a central role in adaptive immune activation and immune surveillance.

HLA-DRA antibody reagents detect the HLA-DR alpha chain, which is frequently described in immunology literature as HLA-DR alpha or the MHC class II DR alpha chain. Expression of HLA-DR is tightly regulated and is typically associated with professional antigen-presenting cells such as B lymphocytes, macrophages, and dendritic cells. However, HLA-DR expression can also be induced in other cell types during immune activation through cytokine signaling pathways, particularly following stimulation by interferon-gamma. Increased expression of HLA-DR molecules is commonly observed in inflammatory conditions, autoimmune disease, infection, and within tumor microenvironments characterized by immune cell infiltration.

Western blot analysis provides a useful method for evaluating HLA-DRA protein expression and confirming presence of the HLA-DR alpha chain in immune cell lysates or experimental models. Detection of HLA-DR alpha by western blot supports studies examining MHC class II expression, antigen presentation pathways, and immune signaling mechanisms. Clone FGI-8 is a recombinant rabbit monoclonal antibody that recognizes HLA-DRA and enables detection of the HLA-DR alpha chain in western blot experiments designed to analyze immune-related protein expression.

Application Notes

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

Immunogen

A synthetic peptide specific to human HLA-DR alpha was used as the immunogen for the HLA-DR antibody.

Storage

Store the HLA-DR antibody at -20oC.

Alternate Names

HLA-DR alpha antibody, HLA-DR antibody, HLA-DR antigen antibody, MHC class II DR antibody