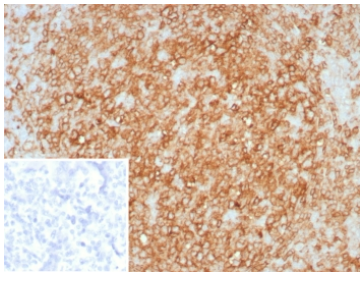
HLA-DR Antibody Recombinant Mouse MAb rHLA-DRA/8285 [clone rHLA-DRA/8285] (V5125)

Catalog No.	Formulation	Size
V5125-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5125-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5125SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

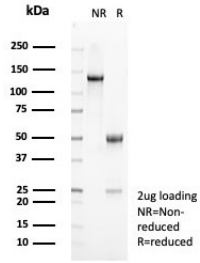
Recombinant | MOUSE MONOCLONAL

Bulk quote request

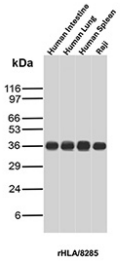
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rHLA-DRA/8285
Purity	Protein A/G affinity
UniProt	P01903
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This HLA-DR antibody is available for research use only.



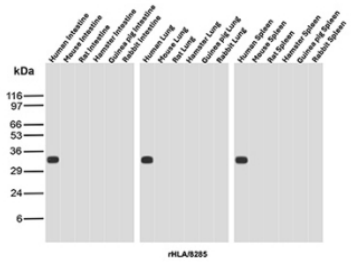
HLA-DR Antibody Recombinant Mouse MAb rHLA-DRA/8285 immunohistochemistry staining of human tonsil tissue. IHC analysis of FFPE human tonsil was performed using recombinant mouse monoclonal HLA-DR antibody clone rHLA-DRA/8285 following heat induced epitope retrieval by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allowing sections to cool before testing. HRP-DAB brown staining highlights HLA-DR positive immune cells within tonsillar lymphoid tissue, consistent with expression of Human leukocyte antigen DR alpha / HLA-DRA on antigen-presenting cells including B lymphocytes and other immune cells. Inset shows PBS used in place of primary antibody as a secondary antibody negative control.



SDS-PAGE analysis of purified, BSA-free recombinant mouse HLA-DR antibody (clone rHLA-DRA/8285) as confirmation of integrity and purity.



HLA-DR Antibody Recombinant Mouse MAb rHLA-DRA/8285 western blot analysis of human tissues and cells. Western blot testing was performed using recombinant mouse monoclonal HLA-DR antibody clone rHLA-DRA/8285. Lane 1: human intestine lysate, Lane 2: human lung lysate, Lane 3: human spleen lysate, Lane 4: human Raji cell lysate. A band is detected at approximately 34-36 kDa, consistent with the predicted molecular weight of Human leukocyte antigen DR alpha / HLA-DRA, the alpha chain of the HLA-DR major histocompatibility complex class II receptor expressed in antigen-presenting immune cells.



HLA-DR Antibody Recombinant Mouse MAb rHLA-DRA/8285 western blot analysis of multi-species tissues. Western blot testing was performed using recombinant mouse monoclonal HLA-DR antibody clone rHLA-DRA/8285. Lanes include intestine, lung, and spleen lysates from human, mouse, rat, hamster, guinea pig, and rabbit. A band is detected at approximately 33-35 kDa in human intestine, human lung, and human spleen samples, consistent with the predicted molecular weight of Human leukocyte antigen DR alpha / HLA-DRA, the alpha chain of the HLA-DR major histocompatibility complex class II receptor expressed in antigen-presenting immune cells. Bands are not observed in the corresponding tissues from other species under these conditions.

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 involved in peptide antigen presentation to CD4-positive T lymphocytes. HLA-DR Antibody Recombinant Mouse MAb rHLA-DRA/8285 recognizes the HLA-DR antigen complex, a widely used marker of major histocompatibility complex class II expression on antigen-presenting immune cells including B lymphocytes, macrophages, and dendritic cells.

HLA-DR is a heterodimeric receptor composed of an alpha chain encoded by HLA-DRA and a beta chain encoded by HLA-DRB genes. These two chains associate to form the HLA-DR antigen complex, which binds peptides derived from extracellular proteins processed within endosomal compartments. The peptide-loaded HLA-DR complex is transported to the cell surface where it presents antigenic peptides to CD4-positive T lymphocytes. Through this antigen presentation pathway, the HLA-DR receptor plays a central role in adaptive immune activation and immune surveillance.

In immunology literature the HLA-DR receptor complex is commonly referred to simply as HLA-DR, and antibodies directed against this molecule are often described as HLA-DR antibodies, HLA-DR alpha antibodies, or MHC class II DR antibodies. HLA-DR antibody reagents therefore detect the HLA-DR antigen complex expressed on professional antigen-presenting cells and immune infiltrates present in tissues. Expression of HLA-DR alpha can be induced by inflammatory cytokines such as interferon-gamma, leading to increased MHC class II expression during infection, autoimmune disease, and inflammatory responses.

Detection of HLA-DR expression using antibodies such as recombinant mouse monoclonal clone rHLA-DRA/8285 supports studies of immune activation, antigen presentation pathways, and immune cell characterization in both normal and disease contexts. Because HLA-DR expression reflects the presence and activation state of antigen-presenting immune cells, analysis of HLA-DR alpha is widely used in immunology, pathology, and cancer research to evaluate

immune infiltration and antigen presentation activity.

Application Notes

Optimal dilution of the HLA-DR Antibody Recombinant Mouse MAb rHLA-DRA/8285 should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the HLA-DR antibody.

Storage

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

Alternate Names

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