

Basic Information

Product Name	Anti-HLA-DRA Antibody (Clone#5B13F7)	
Gene Name	HLA-DRA	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human HLA-DR/HLA-DRA recombinant protein (Position: I26-L254).	
Concentration	500 ug/ml	
Purification	protein G/A purified	
Observed MW	36 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed): 1:50-200 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

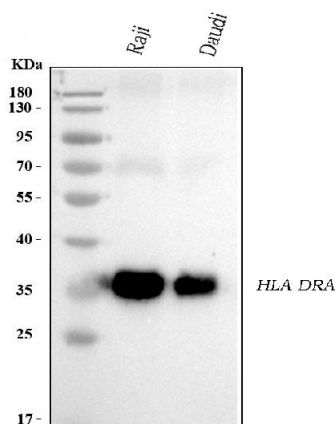
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

HLA class II histocompatibility antigen, DR alpha chain is a protein that in humans is encoded by the HLA-DRA gene. It is mapped to 6p21.32. HLA-DRA is one of the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha and a beta chain, both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. Class II molecules are expressed in antigen presenting cells (APC: B lymphocytes, dendritic cells, macrophages). The alpha chain is approximately 33-35 kDa and its gene contains 5 exons. Exon 1 encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, and exon 4 encodes the transmembrane domain and the cytoplasmic tail. DRA does not have polymorphisms in the peptide binding part and acts as the sole alpha chain for DRB1, DRB3, DRB4 and DRB5.

Selected Validation Data

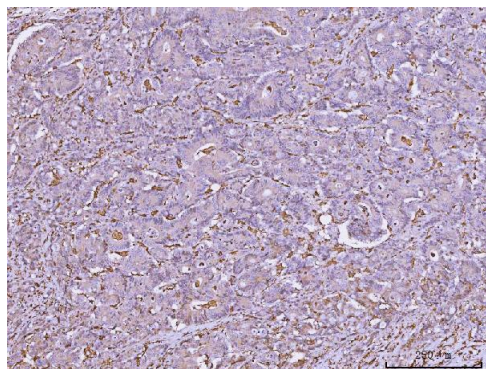


Western blot analysis of HLA-DRA using anti-HLA-DRA antibody (M01195-4). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: Raji whole cell lysates,

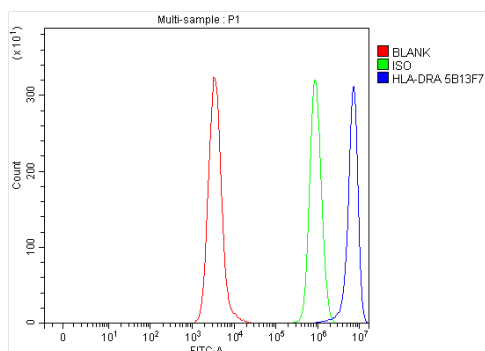
Lane 2: Daudi whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-HLA-DRA antigen affinity purified monoclonal antibody (M01195-4) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for HLA-DRA at approximately 36 kDa. The expected band size for HLA-DRA is at 29 kDa.



IHC analysis of HLA-DRA using anti-HLA-DRA antibody (M01195-4).

HLA-DRA was detected in a paraffin-embedded section of human colonic adenocarcinoma tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-HLA-DRA Antibody (M01195-4) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of Daudi cells using anti-HLA-DRA antibody (M01195-4).

Overlay histogram showing Daudi cells stained with M01195-4 (Blue line).

The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with mouse anti-HLA-DRA Antibody (M01195-4) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.