abcam

ab26089

Anti-HLA-DR antibody [MEM-267]

Lab Essentials

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human HLA-DRA. Database link P01903
Clone number	MEM-267
Purification technique	Affinity purification Protein A
Specificity	This antibody specifically binds to the empty but not peptide loaded form of HLA DR1.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

Target data

See full target information HLA-DRA

Function

An alpha chain of antigen-presenting major histocompatibility complex class II (MHCII) molecule. In complex with the beta chain HLA-DRB, displays antigenic peptides on professional antigen presenting cells (APCs) for recognition by alpha-beta T cell receptor (TCR) on HLA-DR-restricted CD4-positive T cells. This guides antigen-specific T-helper effector functions, both antibody-mediated immune response and macrophage activation, to ultimately eliminate the infectious agents and transformed cells (PubMed:15265931, PubMed:15322540, PubMed:17334368, PubMed:22327072, PubMed:24190431, PubMed:27591323, PubMed:29884618, PubMed:31495665, PubMed:8145819, PubMed:9075930). Typically presents extracellular peptide antigens of 10 to 30 amino acids that arise from proteolysis of endocytosed antigens in lysosomes (PubMed:8145819). In the tumor microenvironment, presents antigenic peptides that are primarily generated in tumor-resident APCs likely via phagocytosis of apoptotic tumor cells or macropinocytosis of secreted tumor proteins (PubMed:31495665). Presents peptides derived from intracellular proteins that are trapped in autolysosomes after macroautophagy, a mechanism especially relevant for T cell selection in the thymus and central immune tolerance (PubMed:17182262, PubMed:23783831). The selection of the immunodominant epitopes follows two processing modes: 'bind first, cut/trim later' for pathogen-derived antigenic peptides and 'cut first, bind later' for autoantigens/self-peptides (PubMed:25413013). The anchor residue at position 1 of the peptide N-terminus, usually a large hydrophobic residue, is essential for high affinity interaction with MHCII molecules (PubMed:8145819).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

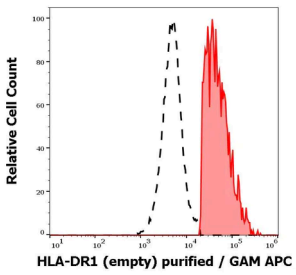
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

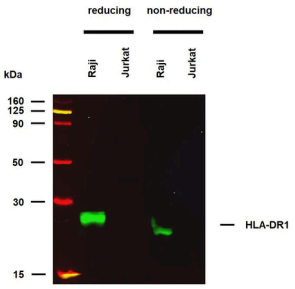
Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



Flow Cytometry - Anti-HLA-DR antibody [MEM-267] (ab26089)

Flow cytometric analysis of Human peripheral whole blood labeling HLA-DR with ab26089 at 9 µg/mL, showing the separation of human HLA-DR1 positive lymphocytes (red-filled) from HLA-DR1 negative lymphocytes (black-dashed).



Western blot - Anti-HLA-DR antibody [MEM-267] (ab26089)

HLA-DR Western blot staining using mouse Anti-HLA-DR antibody

Western blotting analysis was performed on whole cell extracts (RIPA lysis buffer) of Raji and Jurkat cell lines, mixed and heated (100°C, 5 min) with reducing and non-reducing SDS-loading buffer. Samples were resolved using 10% Tris-glycine SDS gel electrophoresis.
All lanes:
Western blot - Anti-HLA-DR antibody [MEM-267] (ab26089) at 1 µg/mL

Lane 1:
Raji whole cell lysate under non-reducing conditions

Lane 2:
Jurkat whole cell lysate under non-reducing conditions

Lane 3:
Raji whole cell lysate under reducing conditions

Lane 4:
Jurkat whole cell lysate under reducing conditions

Observed band size: 25 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.