Anti-HLA-DR Biotin-Labeled, Antibody

Catalog: 101769
Lot: 230418

Product Information

Description:	Recombinant human anti-HLA-DR antibody recognizing human HLA-DR (human leukocyte antigen-DR isotype). This anti-HLA-DR antibody is a purified recombinant antibody, which is labeled with biotin using Avi-Tag™ technology at the C-terminus of the heavy chain unit.
Background:	HLA-DR (human leukocyte antigen -DR isotype) is an MHC (major histocompatibility complex) class II protein and it serves as a ligand for the TCR (T cell receptor) when combined with an immunogenic peptide. Matching HLA isotypes is crucial in organ transplant, with HLA-DR being the main HLA isotype responsible for graft-versus host disease during the first 6 months post-transplant. A number of auto-immune diseases are linked to HLA-DR, including Crohn's disease, lupus, and multiple sclerosis. HLA-DR is found in a subset of NK cells that combine properties from NK and dendritic cells. They are able to produce and release cytokines, degranulate and expand, but also present antigens to $CD4^+$ and $CD8^+$ T cells. The identification of HLA isotypes and understanding of the mechanisms of action of HLA-DR are thus crucial in medicine.
Species:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Concentration:	3.12 mg/ml
Expression System:	HEK293
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
MW:	Heavy Chain: 53 kDa + glycans; Light Chain: 23 kDa
Glycosylation:	This antibody runs at a higher MW by SDS-PAGE due to glycosylation.
Label:	This antibody is enzymatically biotinylated using Avi-Tag™ technology. Biotinylation is confirmed to be ≥90%.
Stability:	At least 12 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Assay Conditions:	The antibody was validated by ELISA. HLA-DR protein was coated onto a 96-well plate overnight at 4°C (50 µl/well at a concentration of 4 µg/ml in PBS). The plate was washed 3 times with Immuno Buffer 1 (BPS Bioscience #79311) and blocked using 100 µl of Blocking Buffer 2 (BPS Bioscience #79728) for 1 hour at room temperature. After removing the blocking buffer and washes, the plate was incubated with Streptavidin-HRP (BioLegend #405210), washed, and incubated with the Colorimetric HRP substrate. The reaction was stopped, and absorbance was read at 450 nm. The Blank value was subtracted from all values.
Applications:	Useful for the study the binding of HLA-DR in ELISA and in cellular assays.

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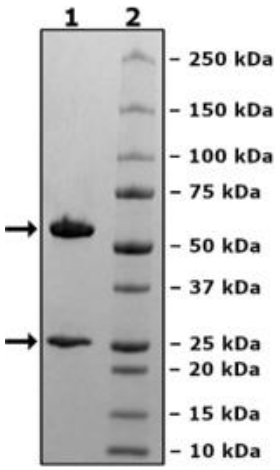
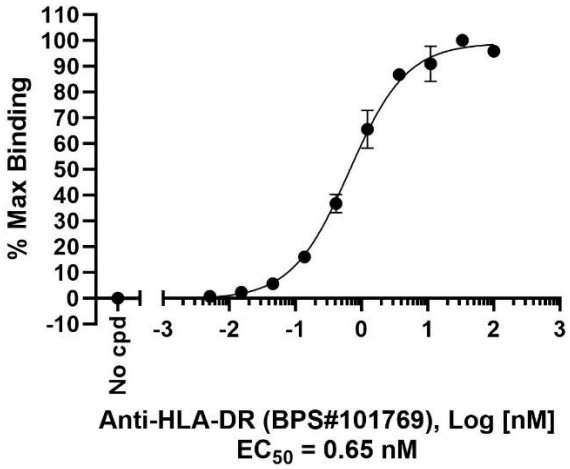
Quality Control Data

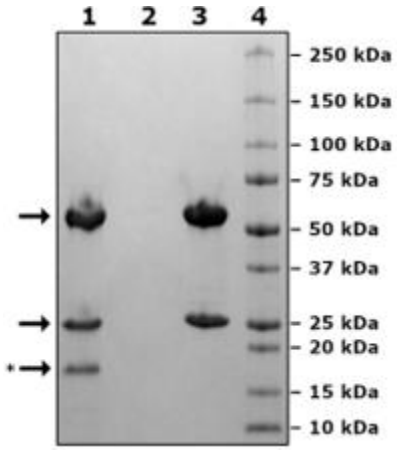
4-20% SDS-PAGE Coomassie Staining



Anti-HLA-DR Binding Activity



Biotin-Avidin Pulldown



1. Beads
2. Flow Thru
3. Control
4. Standards

* Avidin from beads.