PRODUCT INFORMATION

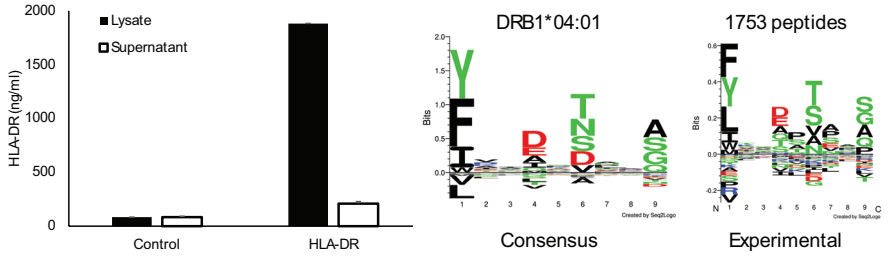
HLA-DR (human) Immunoaffinity Resin (Clone L243)

Item No. 44917

Overview and Properties

Contents: This vial contains 200 µl of Sepharose (100 µl bead volume) coupled to 0.2 mg of an HLA-DR monoclonal antibody (Clone L243)
Synonyms: HLA Class II Histocompatibility Antigen DR Immunoaffinity Resin, HLA-DR Immunoaffinity Beads, HLA-DR Immunoaffinity Sorbent, MHC Class II Antigen DR Immunoaffinity Resin
Cross Reactivity: (+) HLA-DR
Species Reactivity: (+) Human, canine, primate
Form: Slurry
Storage: 4°C (as supplied)
Stability: ≥2 years
Storage Buffer: PBS, pH 7.2, with 0.02% sodium azide
Clone: L243
Host: Mouse
Isotype: IgG_{2a}
Applications: Suitable for immunoprecipitation (IP), working concentration/dilution should be determined empirically.

Image



Left: Control HLA-DR-null HL-60 and HLA-DR overexpressing HL-60 were lysed and incubated overnight with 100 µl HLA-DR (human) Immunoaffinity Resin (Clone L243). The mixture was centrifuged at 500 xg for 5 minutes and the supernatant was recovered (white bars) and compared with lysate (black bars) in the HLA-DR (α and β chains) ELISA Kit (Item No. 501810). Loss of HLA-DR in the supernatant indicates successful capture of HLA complexes on the resin.

Right: Peptides eluted from the captured HLA complexes were subjected to mass spec, which identified 1,753 peptides in the HLA-expressing cells. The sequences of those peptides align favorably with the consensus binding motif of HLA-DRB1*04:01.

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Description

HLA-DR is a MHC Class II cell surface receptor heterodimer composed of a 33-35 kDa α chain, a ~30 kDa β chain, and a 10-30 amino acid ligand.[1] When the heterodimer is fully combined on the cell surface of an antigen-presenting cell, such as macrophages, B cells, and dendritic cells, they present that ligand primarily to CD-4$^+$ T cells.[2] This presentation coupled with the T cell response can stimulate or suppress an antibody response to that ligand. HLR-DRs have been linked to a number of autoimmune disorders such as rheumatoid arthritis, lupus, and psoriasis as well as diabetes, hepatitis, and multiple sclerosis among a number of others.[3-9] Cayman's HLA-DR (human) Immunoaffinity Resin (Clone L243) is designed for immunoprecipitation (IP) of HLA-DR from biological samples. IP is a portion of the MHC-II-associated peptide protemics (MAPPs) procedure used to identify immunogenic epitopes from pathogens, cancers, and biologic drugs. The HLA-DR immunoaffinity resin consists of Cayman's HLA-DR Monoclonal Antibody (Clone L243) (Item No. 21827) coupled to Sepharose.

References

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