

HLA-DR α (h4): 293T Lysate: sc-159470

BACKGROUND

Major histocompatibility complex (MHC) class II molecules destined for presentation to CD4⁺ helper T cells is determined by two key events. These events include the dissociation of class II-associated invariant chain peptides (CLIP) from an antigen binding groove in MHC II- α/β dimers through the activity of MHC molecules HLA-DM and -DO, and subsequent peptide antigen binding. Accumulating in endosomal/lysosomal compartments and on the surface of B cells, HLA-DM, -DO molecules regulate the dissociation of CLIP and the subsequent binding of exogenous peptides to HLA class II molecules (HLA-DR, -DQ and -DP) by sustaining a conformation that favors peptide exchange. RFLP analysis of HLA-DM genes from rheumatoid arthritis (RA) patients suggests that certain polymorphisms are genetic factors for RA susceptibility. HLA-B belongs to the HLA class I heavy chain paralogs. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. HLA-B and -C can form heterodimers consisting of a membrane-anchored heavy chain and a light chain (β -2-Microglobulin). Polymorphisms yield hundreds of HLA-B and -C alleles.

REFERENCES

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- Brunet, A., et al. 2000. Functional characterization of a lysosomal sorting motif in the cytoplasmic tail of HLA-DO β . *J. Biol. Chem.* 275: 37062-37071.
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CHROMOSOMAL LOCATION

Genetic locus: HLA-DRA (human) mapping to 6p21.32.

PRODUCT

HLA-DR α (h4): 293T Lysate represents a lysate of human HLA-DR α transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

HLA-DR α (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive HLA-DR α antibodies. Recommended use: 10-20 μ l per lane.

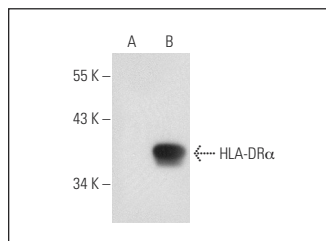
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HLA-DR α (B-10): sc-55592 is recommended as a positive control antibody for Western Blot analysis of enhanced human HLA-DR α expression in HLA-DR α transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

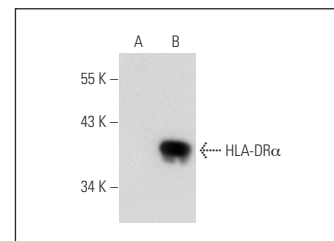
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



HLA-DR α (B-10): sc-55592. Western blot analysis of HLA-DR α expression in non-transfected: sc-117752 (A) and human HLA-DR α transfected: sc-159470 (B) 293T whole cell lysates.



HLA-DR α (G-7): sc-55593. Western blot analysis of HLA-DR α expression in non-transfected: sc-117752 (A) and human HLA-DR α transfected: sc-159470 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.