

# HLA-B/C (D-20): sc-19439

## BACKGROUND

Major histocompatibility complex (MHC) molecules form an integral part of the immune response system. They are cell-surface receptors that bind peptides and present them to T lymphocytes. Human leukocyte antigens (HLAs) are polymorphic members of the MHC family that are specifically involved in the presentation of antigens to the T cell receptor. There are two classes of HLA antigens: class I (HLA-A, HLA-B and HLA-C) and class II (HLA-D). Class I molecules are expressed in nearly all cells and play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum. The differential structural properties of MHC class I and class II molecules account for their respective roles in activating different populations of T lymphocytes. HLA-B and HLA-C encode membrane anchored heavy chains which heterodimerize with a light chain ( $\beta$ -2-Microglobulin) to form MHC-I. Polymorphisms yield hundreds of HLA-B and HLA-C alleles.

## REFERENCES

1. Kropshofer, H., et al. 1998. A role for HLA-DM as a co-chaperone of HLA-DM in peptide loading of MHC class II molecules. *EMBO J.* 17: 2971-2981.
2. Siegmund, T., et al. 1999. HLA-DMA and HLA-DMB alleles in German patients with type 1 diabetes mellitus. *Tissue Antigens* 54: 291-294.
3. Arndt, S.O., et al. 2000. Functional HLA-DM on the surface of B cells and immature dendritic cells. *EMBO J.* 19: 1241-1251.
4. Brunet, A., et al. 2000. Functional characterization of a lysosomal sorting motif in the cytoplasmic tail of HLA-DO beta. *J. Biol. Chem.* 275: 37062-37071.
5. Doebele, C.R., et al. 2000. Determination of the HLA-DM interaction site on HLA-DR molecules. *Immunity* 13: 517-527.
6. Louis-Pence, P., et al. 2000. The down-regulation of HLA-DM gene expression in rheumatoid arthritis is not related to their promoter polymorphism. *J. Immunol.* 16: 4861-4869.
7. Toussiot, E., et al. 2000. The association of HLA-DM genes with rheumatoid arthritis in Eastern France. *Hum. Immunol.* 61: 303-308.
8. LocusLink Report (LocusID: 3106). <http://www.ncbi.nlm.nih.gov/LocusLink/>
9. LocusLink Report (LocusID: 3107). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: HLA-B/C (human) mapping to 6p21.3.

## SOURCE

HLA-B/C (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HLA-B/C of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19439 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

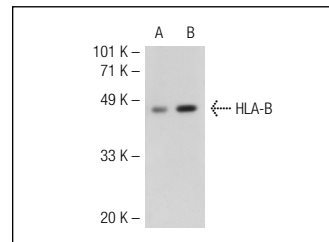
HLA-B/C (D-20) is recommended for detection of HLA-B and HLA-C of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HLA-B/C (D-20) is also recommended for detection of HLA-B and HLA-C in additional species, including equine, canine, bovine and porcine.

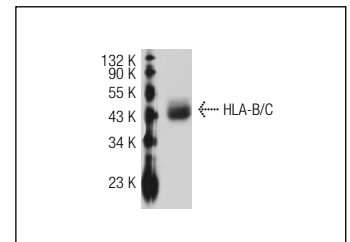
Molecular Weight of HLA-B/C: 45 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## DATA



HLA-B/C (D-20): sc-19439. Western blot analysis of HLA-B expression in non-transfected: sc-117752 (A) and human HLA-B transfected: sc-113341 (B) 293T whole cell lysates.



HLA-B/C (D-20): sc-19439. Western blot analysis of HLA-B/C expression in HL-60 whole cell lysate.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **HLA-B/C (A-3): sc-166668** or **HLA-B/C (A-4): sc-166544**, our highly recommended monoclonal alternatives to HLA-B/C (D-20).