SANTA CRUZ BIOTECHNOLOGY, INC.

HLA-C (Q-18): sc-19438

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 class IIα/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.

CHROMOSOMAL LOCATION

Genetic locus: HLA-C (human) mapping to 6p21.33.

SOURCE

HLA-C (Q-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HLA-C of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19438 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

HLA-C (Q-18) is recommended for detection of HLA-C of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for HLA-C siRNA (h): sc-105525, HLA-C shRNA Plasmid (h): sc-105525-SH and HLA-C shRNA (h) Lentiviral Particles: sc-105525-V.

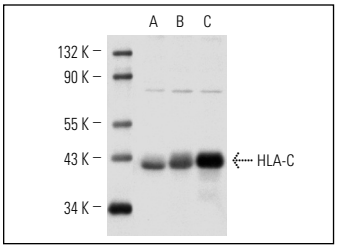
Molecular Weight of HLA-C: 43 kDa.

Positive Controls: CCRF-HSB-2 cell lysate: sc-2265, CCRF-CEM cell lysate: sc-2225 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HLA-C (Q-18): sc-19438. Western blot analysis of HLA-C expression in CCRF-CEM (**A**), Jurkat (**B**) and CCRF-HSB-2 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chan, C.M., et al. 2009. Identification of major histocompatibility complex class I C molecule as an attachment factor that facilitates coronavirus HKU1 spike-mediated infection. J. Virol. 83: 1026-1035.
2. Lorente, E., et al. 2011. Allele-dependent processing pathways generate the endogenous human leukocyte antigen (HLA) class I peptide repertoire in TAP-deficient cells. J. Biol. Chem. 286: 38054-38059.
3. Lorente, E., et al. 2012. A viral, transporter associated with antigen processing (TAP)-independent, high affinity ligand with alternative interactions endogenously presented by the nonclassical human leukocyte antigen E class I molecule. J. Biol. Chem. 287: 34895-34903.
4. Lorente, E., et al. 2012. Multiple viral ligands naturally presented by different class I molecules in transporter antigen processing-deficient vaccinia virus-infected cells. J. Virol. 86: 527-541.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **HLA-C (H-5): sc-166134** or **HLA-C (C-8): sc-166088**, our highly recommended monoclonal alternatives to HLA-C (Q-18).