SANTA CRUZ BIOTECHNOLOGY, INC.

HA-8 (C-14): sc-162976

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Major histocompatibility complex (MHC) molecules, which include human leukocyte antigens (HLAs), form an integral part of the immune response system. They are cell-surface receptors that bind foreign peptides and present them to cytotoxic T lymphocytes (CTLs). Minor histocompatibility antigens can form an immune response upon recognition by certain T-cells when complexed with MHC molecules. HA-8 (histocompatibility antigen-8), also known as XTP5 (HBV X-transactivated gene 5 protein), PUF6, PEN, HLA-HA8 or KIAA0020, is a 648 amino acid nuclear protein that contains six pumilio repeats and one PUM-H (pumilio homology) domain. The pumilio repeat is an imperfectly repeated 36 amino acid motif that is flanked by short N- and C-terminal regions which, together, comprise the PUM-H domain. Proteins that contain PUM-H domains usually exhibit sequence-specific RNA binding capabilities and often play a role in repressing the translation of select mRNAs. Expressed ubiquitously with highest expression in liver, kidney, lung, colon, ovary and testis, HA-8 contains a histocompatibility antigen-8 region that can be cleaved and exposed at the cell surface, where it may function as a minor histocompatibility antigen. Due to the presence of a PUM-H domain, HA-8 may be involved in the regulation of translation.

REFERENCES

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4. Riddell, S.R., et al. 2002. Minor histocompatibility antigens—targets of graft versus leukemia responses. Int. J. Hematol. 76: 155-161.
5. Warren, E.H., et al. 2002. Feasibility of using genetic linkage analysis to identify the genes encoding T cell-defined minor histocompatibility antigens. Tissue Antigens 59: 293-303.
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7. Akatsuka, Y., et al. 2003. Disparity for a newly identified minor histocompatibility antigen, HA-8, correlates with acute graft-versus-host disease after haematopoietic stem cell transplantation from an HLA-identical sibling. Br. J. Haematol. 123: 671-675.
8. Spassov, D.S., et al. 2003. The PUF family of RNA-binding proteins: does evolutionarily conserved structure equal conserved function? IUBMB Life 55: 359-366.
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CHROMOSOMAL LOCATION

Genetic locus: KIAA0020 (human) mapping to 9p24.2.

SOURCE

HA-8 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HA-8 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-162976 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HA-8 (C-14) is recommended for detection of HA-8 of human origin and LOC499339 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other HA family members.

HA-8 (C-14) is also recommended for detection of HA-8 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for HA-8 siRNA (h): sc-92538, HA-8 shRNA Plasmid (h): sc-92538-SH and HA-8 shRNA (h) Lentiviral Particles: sc-92538-V.

Molecular Weight of HA-8: 74 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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) 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.

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 or our catalog for detailed protocols and support products.