

## HA-8 (B-20): sc-130048

### 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

1. Brickner, A.G., et al. 2001. The immunogenicity of a new human minor histocompatibility antigen results from differential antigen processing. *J. Exp. Med.* 193: 195-206.
2. Wang, X., et al. 2001. Crystal structure of a pumilio homology domain. *Mol. Cell* 7: 855-865.
3. Wang, X., et al. 2002. Modular recognition of RNA by a human pumilio-homology domain. *Cell* 110: 501-512.
4. Riddell, S.R., et al. 2002. Minor histocompatibility antigens—targets of graft versus leukemia responses. *Int. J. Hematol.* 76 Suppl. 2: 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.
6. 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.

### CHROMOSOMAL LOCATION

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

### SOURCE

HA-8 (B-20) is a purified rabbit polyclonal antibody raised against HA-8 of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

### APPLICATIONS

HA-8 (B-20) is recommended for detection of HA-8 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), immunohistochemistry (including paraffin-embedded sections) (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 HA-8 siRNA (h): sc-92538, HA-8 shRNA Plasmid (h): sc-92538-SH and HA-8 shRNA (h) Lentiviral Particles: sc-92538-V.

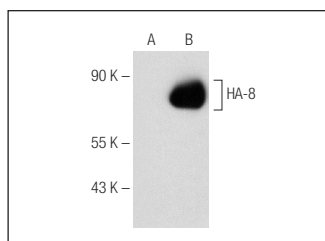
Molecular Weight of HA-8: 62 kDa.

Positive Controls: HA-8 (h): 293T Lysate: sc-111869 or Hep G2 cell lysate: sc-2227.

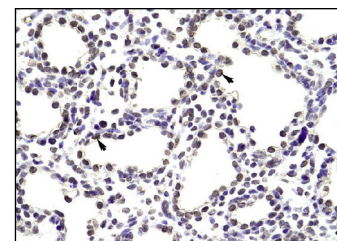
### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

### DATA



HA-8 (B-20): sc-130048. Western blot analysis of HA-8 expression in non-transfected: sc-117752 (A) and human HA-8 transfected: sc-111869 (B) 293T whole cell lysates.



HA-8 (B-20): sc-130048. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung showing nuclear staining.

### 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.