SANTA CRUZ BIOTECHNOLOGY, INC.

HEC-GlcNAc6ST (M-12): sc-49029

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The GlcNAc-6-sulfotransferases are a family of Golgi-resident proteins that regulate glycan function. HEC-GlcNAc6ST is greatly limited in its expression at the protein level. Detection of protein expression is observed in HEVs (high endothelial venules) in lymph nodes and HEV-like vessels in instances of lymphoid neogenesis. The other members of the GlcNAc6ST family differ from HEC-GlcNAc6ST in that they are presumed to have a wider tissue distribution based on Northern analysis. HEC-GlcNAc6ST is not expressed in the HEVs of PPs (Peyer's patches), and as an HEV-localized sulfotransferase, it is essential for the elaboration of functional ligands within lymph nodes, as well as the generation of the MECA-79 defined luminal ligands.

REFERENCES

1. van Zante, A., et al. 2003. Lymphocyte-HEV interactions in lymph nodes of a sulfotransferase-deficient mouse. J. Exp. Med. 198: 1289-1300.
2. Bistrup, A., et al. 2004. Detection of a sulfotransferase (HEC-GlcNAc6ST) in high endothelial venules of lymph nodes and in high endothelial venule-like vessels within ectopic lymphoid aggregates: relationship to the MECA-79 epitope. Am. J. Pathol. 164: 1635-1644.
3. Gauguet, J.M., et al. 2004. Core 2 branching β1,6-N-acetylglucosaminyl-transferase and high endothelial cell N-acetylglucosamine-6-sulfotransferase exert differential control over B and T lymphocyte homing to peripheral lymph nodes. Blood 104: 4104-4112.
4. Nishimura, M., et al. 2004. Effects of NO-1886 (Ibrolipim), a lipoprotein lipase-promoting agent, on gene induction of cytochrome P450s, carboxylesterases and sulfotransferases in primary cultures of human hepatocytes. Drug Metab. Pharmacokinet. 19: 422-429.
5. Pablos, J.L., et al. 2005. A HEV-restricted sulfotransferase is expressed in rheumatoid arthritis synovium and is induced by Lymphotoxin-α/β and TNFα in cultured endothelial cells. BMC Immunol. 6: 6.
6. Rosen, S.D., et al. 2005. Therapeutic targeting of endothelial ligands for L-Selectin (PNAd) in a sheep model of asthma. Am. J. Pathol. 166: 935-944.

CHROMOSOMAL LOCATION

Genetic locus: Chst4 (mouse) mapping to 8 D3.

SOURCE

HEC-GlcNAc6ST (M-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HEC-GlcNAc6ST of mouse 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-49029 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

HEC-GlcNAc6ST (M-12) is recommended for detection of HEC-GlcNAc6ST of mouse and rat 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 HEC-GlcNAc6ST siRNA (m): sc-60777, HEC-GlcNAc6ST shRNA Plasmid (m): sc-60777-SH and HEC-GlcNAc6ST shRNA (m) Lentiviral Particles: sc-60777-V.

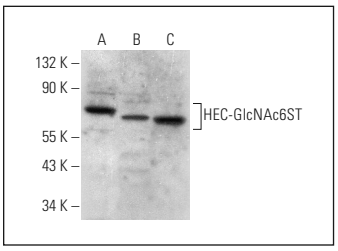
Molecular Weight of HEC-GlcNAc6ST: 40 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, KNRK whole cell lysate: sc-2214 or PC-12 cell lysate: sc-2250.

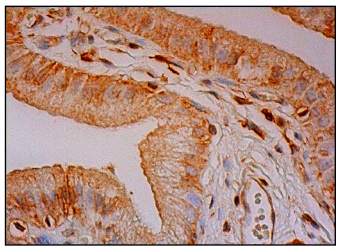
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



HEC-GlcNAc6ST (M-12): sc-49029. Western blot analysis of HEC-GlcNAc6ST expression in NIH/3T3 (**A**), KNRK (**B**) and PC-12 (**C**) whole cell lysates.



HEC-GlcNAc6ST (M-12): sc-49029. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.

STORAGE

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

PROTOCOLS

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