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CHST4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21310b

Product Information

Application	WB, E
Primary Accession	Q8NCG5
Reactivity	Human
Predicted	Canine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52322
Calculated MW	45134

Additional Information

Gene ID	10164
Other Names	Carbohydrate sulfotransferase 4, 282-, Galactose/N-acetylglucosamine/N-acetylglucosamine 6-O-sulfotransferase 3, GST-3, High endothelial cells N-acetylglucosamine 6-O-sulfotransferase, HEC-GlcNAc6ST, L-selectin ligand sulfotransferase, LSST, N-acetylglucosamine 6-O-sulfotransferase 2, GlcNAc6ST-2, Gn6st-2, CHST4
Target/Specificity	This CHST4 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 357-390 amino acids from the C-terminal region of human CHST4.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CHST4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CHST4
Function	Sulfotransferase involved in SELL/L-selectin ligand biosynthesis pathway.

	Catalyzes the transfer of the sulfate group from 3'-phospho-5'-adenylyl sulfate (PAPS) onto the hydroxyl group at C-6 position of the non-reducing N-acetylglucosamine (GlcNAc) residue within O-linked mucin-type glycans. Contributes to generate sialyl 6- sulfo Lewis X determinant (also known as MECA-79 epitope) for SELL recognition, a prerequisite for continuous lymphocyte homing into peripheral lymph nodes and antigen immune surveillance (PubMed:10330415, PubMed:11439191, PubMed:11726653, PubMed:12107080). Transfers the sulfate group primarily on core 2 GlcNAcbeta1-6(Galbeta1- 3)GalNAcalphaSer/Thr and extended core 1 GlcNAcbeta1-3Galbeta1- 3GalNAcalphaSer/Thr based O-linked glycans on CD34 and GLYCAM1 peripheral node addressins (PNAds) expressed on the lumenal side of high endothelial venules (HEVs) (PubMed:11439191). The recognition of PNAds by SELL initiates a multistep process comprising tethering and rolling of blood lymphocytes on HEVs against the blood flow, followed by chemokine signaling, integrin-mediated lymphocyte adhesion onto endothelial cells and lymphocyte transendothelial migration. Modulates rolling velocity and differential T and B lymphocyte recruitment into peripheral lymph nodes, with a major role in B lymphocyte homing. Might be redundant in sulfation of MADCAM1 and lymphocyte trafficking to mesenteric lymph nodes (By similarity). Can also sulfonate core 3 GlcNAcbeta1-3GalNAc-R based glycans as well as GlcNAcbeta1-3Galbeta1- Glc, GlcNAcbeta1-6ManOMe and GlcNAcbeta1-2Man oligosaccharides, which might be ectopically expressed during tumorigenesis (PubMed:11439191, PubMed:11726653, PubMed:12107080).
Cellular Location	Golgi apparatus membrane; Single-pass type II membrane protein
Tissue Location	Specifically expressed in HEV. Weakly expressed in spleen. Not expressed in other tissues. Expressed in colonic mucinous adenocarcinoma.

Background

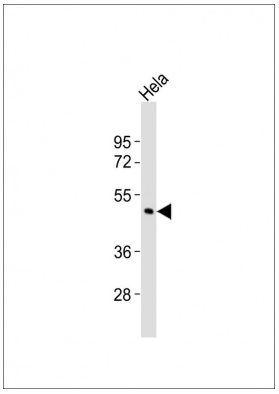
Sulfotransferase that utilizes 3'-phospho-5'-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the transfer of sulfate to position 6 of non-reducing N-acetylglucosamine (GlcNAc) residues within mucin-associated glycans that ultimately serve as SELL ligands. SELL ligands are present in high endothelial cells (HEVs) and play a central role in lymphocyte homing at sites of inflammation. Participates in biosynthesis of the SELL ligand sialyl 6-sulfo Lewis X on receptors SPN/CD43, GLYCAM1 and MADCAM1. Also involved in biosynthesis of SELL ligand recognized by MECA-79 antibody. Plays a central role in lymphocyte trafficking during chronic inflammation. Has a catalytic preference for core 2- branched mucin-type O-glycans. Can use GlcNAcbeta1-6[Galbeta1- 3]GalNAc-pNP (core 2), GlcNAcbeta1-6ManOMe and GlcNAcbeta1-2Man oligosaccharide structures as acceptors. Has also activity toward core 3 of GlcNAcbeta1-3GalNAc-pNP. Its substrate specificity may be influenced by its subcellular location.

References

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Yeh J.-C.,et al.Cell 105:957-969(2001).
Hemmerich S.,et al.Glycobiology 11:75-87(2001).
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Li X.,et al.J. Leukoc. Biol. 69:565-574(2001).

Images

Anti-CHST4 Antibody (C-term)at 1:2000 dilution + Hela whole cell lysates Lysates/proteins at 20 µg per lane.



Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.