

NDST4 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57380**Specification****NDST4 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9H3R1
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	101 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NDST4
Epitope Specificity	101-200/872
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus membrane; Single-pass type II membrane protein
SIMILARITY	Belongs to the sulfotransferase 1 family. NDST subfamily.
SUBUNIT	Monomer
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

The N-deacetylation and N-sulfation of N-acetylglucosamine residues in heparan sulfate and heparin initiate a set of biochemical reactions, which lead to the synthesis of oligosaccharide sequences that have specific ligand binding properties (1). These reactions are catalyzed by the monomeric enzymes GlcNAc Ndeacetylase/N-sulfotransferases (NDSTs), which have two catalytic activities (1). Multiple NDST isozymes have been identified, each having unique tissue distribution and enzymatic properties (2). Phylogenetic data suggests that NDST1-4 evolved from a common ancestral gene, which diverged to give rise to two subtypes, NDST1/2 and NDST3/4 (2). NDST1, which maps to human chromosome 5q32-q33.1, shares the most homology with NDST2, which maps to human chromosome 10q22 (3,4). The least conserved amino acids between these two enzymes are found in the N-terminus/putative transmembrane regions (3). The human NDST3 and NDST4 genes are closely linked on chromosome 4, mapping to chromosome 4q25-26 and 4q26-27, respectively (2,5,6). RT-PCR analysis of various mouse tissues reveals a restricted pattern of NDST3 and NDST4 mRNA expression when compared with that of NDST1 and NDST2, which are abundantly and ubiquitously expressed (2).

NDST4 Polyclonal Antibody - Additional Information**Gene ID 64579**

Other Names

Bifunctional heparan sulfate N-deacetylase/N-sulfotransferase 4, 2.8.2.8, Glucosaminyl N-deacetylase/N-sulfotransferase 4, NDST-4, N-heparan sulfate sulfotransferase 4, N-HSST 4, Heparan sulfate N-deacetylase 4, 3.-.-., Heparan sulfate N-sulfotransferase 4, 2.8.2.-, NDST4, HSST4

Dilution

IHC-P~~N/A
IHC-F~~N/A
IF~~1:50~200
ICC~~N/A
E~~N/A

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

NDST4 Polyclonal Antibody - Protein Information

Name NDST4

Synonyms HSST4

Function

Essential bifunctional enzyme that catalyzes both the N- deacetylation and the N-sulfation of glucosamine (GlcNAc) of the glycosaminoglycan in heparan sulfate. Modifies the GlcNAc-GlcA disaccharide repeating sugar backbone to make N-sulfated heparosan, a prerequisite substrate for later modifications in heparin biosynthesis. Has low deacetylase activity but high sulfotransferase activity (By similarity).

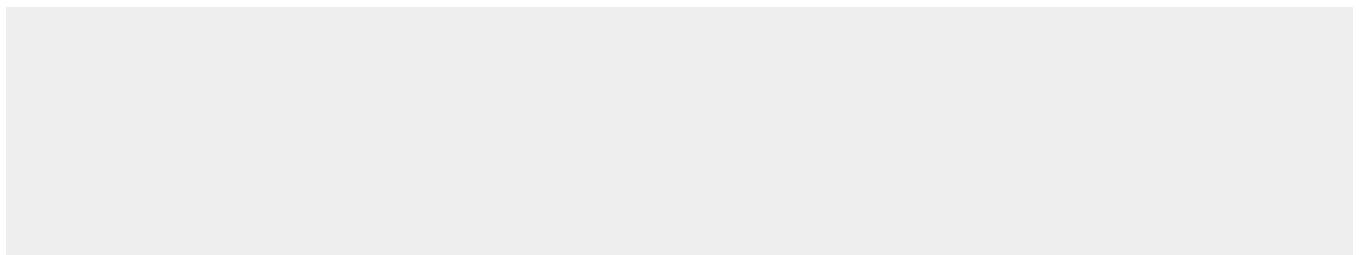
Cellular Location

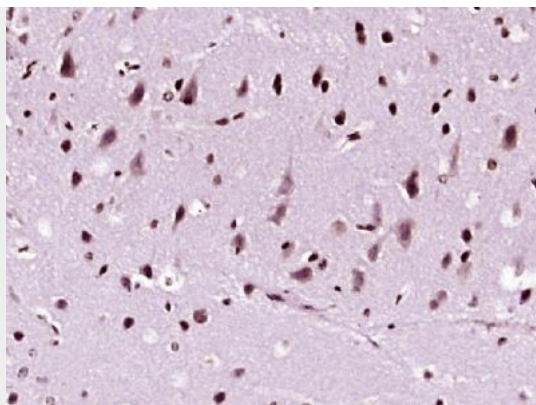
Golgi apparatus membrane; Single- pass type II membrane protein

NDST4 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NDST4 Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NDST4) Polyclonal Antibody, Unconjugated (bs-19065R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.