

# NDST4 Rabbit pAb

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Catalog # AP57380

## Product Information

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| <b>Application</b>             | IHC-P, IHC-F, IF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Primary Accession</b>       | <a href="#">Q9H3R1</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Reactivity</b>              | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Predicted</b>               | Rat, Pig, Dog, Human, Rabbit, Chicken, Horse, Sheep                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Host</b>                    | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Clonality</b>               | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Calculated MW</b>           | 100716                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Physical State</b>          | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Immunogen</b>               | KLH conjugated synthetic peptide derived from human NDST4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Epitope Specificity</b>     | 101-200/872                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Isotype</b>                 | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>                  | affinity purified by Protein A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Buffer</b>                  | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>SUBCELLULAR LOCATION</b>    | Golgi apparatus membrane; Single-pass type II membrane protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Important Note</b>          | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Background Descriptions</b> | <p>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).</p> |

## Additional Information

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| <b>Gene ID</b>     | 64579                                                                                                                                                |
| <b>Other Names</b> | 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=1:100-500,IHC-F=1:100-500,IF=1:100-500

**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.

## Protein Information

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**Name**

NDST4

**Synonyms**

HSST4

**Function**

Essential enzyme that catalyzes the N-sulfation of glucosamine (GlcNAc) of the glycosaminoglycan in heparan sulfate (PubMed:[29158133](#)). Modifies the GlcNAc-GlcA disaccharide repeating sugar backbone to make N-sulfated heparosan, a prerequisite substrate for later modifications in heparin biosynthesis (PubMed:[29158133](#)). Has no deacetylase activity but high sulfotransferase activity (PubMed:[29158133](#)). Plays a crucial role in the differentiation of colonic progenitor cells (By similarity).

**Cellular Location**

Golgi apparatus membrane; Single-pass type II membrane protein

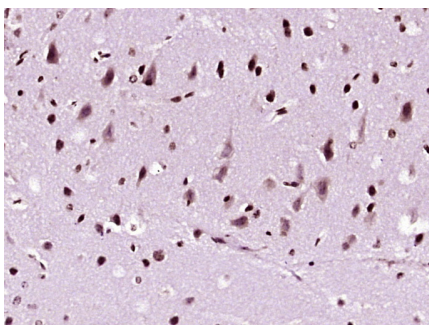
## Background

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## Images

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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 (AP57380) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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