

## Active Recombinant Human Heparan Sulfate (glucosamine) 3-O-Sulfotransferase 4, His-tagged

**Cat. No.** HS3ST4-1971H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Product Overview</b> | Recombinant Human HS3ST4 protein was expressed in Chinese Hamster Ovary cell line. Gly184-Lys456, with an N-terminal 6-His tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | CHO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Protein Length</b>   | 184-456 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | <p>Heparan sulfate is a highly sulfated polysaccharide that can be found on the cell surface and within the extracellular matrix. It is typically covalently attached to the protein core of proteoglycans, such as syndecans and glypicans. Heparin, on the other hand, can be considered as a highly sulfated version of heparan sulfate that is predominantly found in mast cells. Both heparin and heparan sulfate contain disaccharide repeats of uronic acid and N-acetylglucosamine and are modified by the same sulfotransferases. The uronic acid residues can be sulfated at the 2-O position by heparin sulfate 2-O sulfotransferase (HS2ST). The N-acetylglucosamine residues can be sulfated at the N, 3-O, and 6-O positions by N-deacetylase/ N-sulfotransferases (NDSTs), heparan sulfate 3-O sulfotransferases (HS3STs) and heparan sulfate 6-O sulfotransferases (HS6STs) respectively. There are seven HS3STs in the human genome.</p> |
| <b>Form</b>             | Supplied as a 0.2 µm filtered solution in Tris, NaCl and Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                           |                                                                                                                                                                                       |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>N-terminalSequence</b> | HHHHHHGGAV                                                                                                                                                                            |
| <b>MolecularWeight</b>    | 32 kDa                                                                                                                                                                                |
| <b>Activity</b>           | Measuredby its ability to transfer sulfate from PAPS to heparan sulfate. The specificactivity is > 5 pmoles/min/μg, as measured under the described conditions.                       |
| <b>Endotoxin Level</b>    | <1.0EU per 1μg of the protein by the LAL method.                                                                                                                                      |
| <b>SDS-PAGE</b>           | 35-43kDa, reducing conditions.                                                                                                                                                        |
| <b>Purity</b>             | >95%,by SDS-PAGE under reducing conditions and visualized by Colloidal CoomassieBlue stain at 5 ug per lane.                                                                          |
| <b>Storage</b>            | Use amanual defrost freezer and avoid repeated freezethaw cycles. 6 monthsfrom date of receipt, -20 to -70°C as supplied. 3 months,-20to-70°C under sterile conditions after opening. |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | HS3ST4 heparan sulfate(glucosamine) 3-O-sulfotransferase 4 [ Homo sapiens ]                                                                                                                                                                               |
| <b>Official Symbol</b> | HS3ST4                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>        | HS3ST4; heparansulfate (glucosamine) 3-O-sulfotransferase 4; 3OST4;3OST4; 3-OST-4; h3-OST-4; heparan sulfate glucosamine3-O-sulfotransferase 4; heparan sulfate 3-O-sulfotransferase 4; heparansulfate D-glucosaminyI 3-O-sulfotransferase 4; EC 2.8.2.23 |
| <b>Gene ID</b>         | 9951                                                                                                                                                                                                                                                      |

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|----------------------------|------------------------------------------------------------------------------------------------------------|
| <b>mRNA Refseq</b>         | NM_006040                                                                                                  |
| <b>Protein Refseq</b>      | NP_006031                                                                                                  |
| <b>MIM</b>                 | 604059                                                                                                     |
| <b>UniProt ID</b>          | Q9Y661                                                                                                     |
| <b>Chromosome Location</b> | 16p11.2                                                                                                    |
| <b>Function</b>            | [heparansulfate]-glucosamine 3-sulfotransferase 1 activity; sulfotransferase activity;transferase activity |

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