

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

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

SPECIFICATION

Product Overview

Recombinant Human HS3ST4 protein was expressed in Chinese Hamster Ovary cell line. Gly184-Lys456, with an N-terminal 6-His tag.

Species

Human

Source

CHO

Protein Length

184-456 a.a.

Description

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.

Form

Supplied as a 0.2 µm filtered solution in Tris, NaCl and Glycerol.

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

GENE INFORMATION

Gene Name	HS3ST4 heparan sulfate (glucosamine) 3-O-sulfotransferase 4 [Homo sapiens]
Official Symbol	HS3ST4
Synonyms	HS3ST4; heparan sulfate (glucosamine) 3-O-sulfotransferase 4; 3OST4; 3OST4; 3-O-ST-4; h3-O-ST-4; heparan sulfate glucosamine 3-O-sulfotransferase 4; heparan sulfate 3-O-sulfotransferase 4; heparan sulfate D-glucosaminyl 3-O-sulfotransferase 4; EC 2.8.2.23
Gene ID	9951

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

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