

Recombinant Human HS3ST1, His-tagged

Cat. No. HS3ST1-2320H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human HS3ST1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	310aa
Description	Heparan sulfate glucosamine 3-O-sulfotransferase 1, also known as HS3ST1, is sulfotransferase that utilizes 3"-phospho-5"-adenylyl sulfate (PAPS) to catalyze the transfer of a sulfo group to position 3 of glucosamine residues in heparan. This protein catalyzes the rate limiting step in the biosynthesis of heparan sulfate (HSact). This modification is a crucial step in the biosynthesis of anticoagulant heparan sulfate as it completes the structure of the antithrombin pentasaccharide binding site.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 40% glycerol, 2mM DTT
Molecular Mass	36.2 kDa
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGS RPAELGQ QELLRKAGTL QDDVRDGVAP NGSAQQLPQT IIIGVRKGGT RALLEMLSLH PDVAAAENEV HFFDWEEHYS HGLGWYLSQM PFSWPHQLTV EKTPAYFTSP KVPERVYSMN PSIRLLLLIR DPSERVLSDY TQVFYNHMQK HKPYPSIEEF LVRDGRNLNVD YKALNRSLYH

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VHMQNWLRFF PLRHHIVDG DRLRDPFPE IQKVERFLKL SPQINASNFY
FNKTKGFYCL RDSGRDRCLH ESKGRAHPQV DPKLLNKLHE YFHEPNKKFF
ELVGRTFDWH

Purity >90% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 0.25 mg/ml

GENE INFORMATION

Gene Name [HS3ST1 heparan sulfate \(glucosamine\) 3-O-sulfotransferase 1 \[Homo sapiens \]](#)

Official Symbol HS3ST1

Synonyms HS3ST1; heparan sulfate (glucosamine) 3-O-sulfotransferase 1; heparan sulfate glucosamine 3-O-sulfotransferase 1; 3OST1; 3-OST-1; h3-OST-1; heparan sulfate 3-O-sulfotransferase 1; heparin-glucosamine 3-O-sulfotransferase; heparan sulfate D-glucosaminyl 3-O-sulfotransferase 1; 3OST;

Gene ID [9957](#)

mRNA Refseq [NM_005114](#)

Protein Refseq [NP_005105](#)

MIM [603244](#)

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UniProt ID	O14792
Chromosome Location	4p16
Pathway	Glycosaminoglycan biosynthesis - heparan sulfate, organism-specific biosystem; Glycosaminoglycan biosynthesis - heparan sulfate, conserved biosystem; heparan sulfate biosynthesis, organism-specific biosystem; heparan sulfate biosynthesis, conserved biosystem; heparan sulfate biosynthesis (late stages), organism-specific biosystem; heparan sulfate biosynthesis (late stages), conserved biosystem;
Function	[heparan sulfate]-glucosamine 3-sulfotransferase 1 activity; sulfotransferase activity; transferase activity;

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