HS3ST1 Protein, Human (sf9, His)

Cat. No.:	HY-P76974
Synonyms:	Heparan sulfate glucosamine 3-O-sulfotransferase 1; 3-OST-1; 3OST; 3OST1
Species:	Human
Source:	Sf9 insect cells
Accession:	O14792 (R21-H307)
Gene ID:	9957
Molecular Weight:	Approximately 36 kDa.

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	HS3ST1 protein, a sulfotransferase utilizing 3'-phospho-5'-adenylyl sulfate (PAPS) as its substrate, plays a pivotal role in the biosynthesis of heparan sulfate (HS) by catalyzing the transfer of a sulfo group to position 3 of glucosamine residues in heparan. This enzymatic activity represents the rate-limiting step in HS biosynthesis, crucial for the formation of anticoagulant heparan sulfate. The sulfation at position 3 of glucosamine residues, facilitated by HS3ST1, is particularly significant as it completes the structure of the antithrombin pentasaccharide binding site. By modulating heparan sulfate biosynthesis, HS3ST1 contributes to the generation of structurally specific molecules involved in anticoagulation, emphasizing its crucial role in regulating blood coagulation processes.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA