

[heparan sulfate]-glucosamine 3-sulfotransferase 1

Cat. No. EXWM-3382 Lot. No. (See product label)

Introduction	
Description	This enzyme differs from the other [heparan sulfate]-glucosamine 3- sulfotransferases [EC 2.8.2.29 ([heparan sulfate]-glucosamine 3-sulfotransferase 3)] by being the most selective for a precursor of the antithrombin-binding site. It has a minimal acceptor sequence of: \rightarrow GlcNAc6S \rightarrow GlcA \rightarrow GlcN2S*+/-6S \rightarrow IdoA2S \rightarrow GlcN2S \rightarrow , the asterisk marking the target (symbols as in 2-Carb-38) using +/- to mean the presence or absence of a substituent, and > to separate a predominant structure from a minor one. Thus Glc(N2S > NAc) means a residue of glucosamine where the N carries a sulfo group mainly but occasionally an acetyl group.). It can also modify other precursor sequences within heparan sulfate but this action does not create functional antithrombin-binding sites. These precursors are variants of the consensus sequence: \rightarrow Glc(N2S > NAc)+/-6S \rightarrow GlcA \rightarrow GlcN2S*+/-6S \rightarrow GlcA > IdoA+/-2S \rightarrow Glc(N2S/NAc)+/-6S \rightarrow . If the heparan sulfate substrate lacks 2-O- sulfation of GlcA residues, then enzyme specificity is expanded to modify selected glucosamine residues preceded by IdoA as well as GlcA.
Synonyms	heparin-glucosamine 3-O-sulfotransferase; 3'-phosphoadenylyl-sulfate:heparin- glucosamine 3-O-sulfotransferase; glucosaminyl 3-O-sulfotransferase; heparan sulfate D-glucosaminyl 3-O-sulfotransferase; isoform/isozyme 1 (3-OST-1, HS3ST1)
Product Information	
Form	Liquid or lyophilized powder
EC Number	EC 2.8.2.23
CAS No.	183257-54-7
Reaction	3'-phosphoadenylyl sulfate + [heparan sulfate]-glucosamine = adenosine 3',5'- bisphosphate + [heparan sulfate]-glucosamine 3-sulfate
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.
Storage and Shipping Information	

Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.