

Active Recombinant Human SGSH protein, His-tagged

Cat. No. SGSH-22H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human SGSH(Arg23-Leu502) fused with His tag at C-terminal was expressed in Insect cells.
Species	Human
Source	Insect Cells
ProteinLength	23-502 a.a.
Description	Also known as N-sulfoglucosamine sulfohydrolase and heparan N-sulfatase, Sulfamidase/SGSH is an important member of the sulfatase family involved in the degradation of heparan sulfate (HS). Different from the HS specific endosulfatases that remove sulfate from internal GlcNAc residues, SGSH removes sulfate group from the non-reducing end glucosamine residues on HS. The SGSH deficiency results in mucopolysaccharidosis type IIIA (MPS IIIA, Sanfilippo A syndrome), an autosomal recessive lysosomal storage disease characterized by neurological dysfunction but relatively mild somatic manifestations. Human SGSH shows 88.6% sequence identity with that of mouse sequence.
Predicted N Terminal	Arg23
Form	Supplied as a 0.2 µm filtered solution in Tris and NaCl.
Bio-activity	Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is >0.3 pmol/min/µg.

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Molecular Mass	Predicted Molecular Mass: 55 kDa;SDS-PAGE: 55-63 kDa, reducing conditions.
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 µg per lane.
Storage	Avoid repeated freeze-thaw cycles.6 months from date of receipt, -20 to -70 centigrade as supplied.3 months, -20 to -70 centigrade under sterile conditions after opening.

GENE INFORMATION

Gene Name	SGSH N-sulfoglucosamine sulfohydrolase [Homo sapiens]
Official Symbol	SGSH
Synonyms	SGSH; N-sulfoglucosamine sulfohydrolase; N-sulphoglucosamine sulphohydrolase; HSS; MPS3A; mucopolysaccharidosis type IIIA; SFMD; sulfamidase; sulphamidase; heparan sulfate sulfatase; sulfoglucosamine sulfamidase;
Gene ID	6448
mRNA Refseq	NM_000199
Protein Refseq	NP_000190
MIM	605270
UniProt ID	P51688

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Chromosome Location	17q25.3
Pathway	Glycosaminoglycan degradation, organism-specific biosystem; Glycosaminoglycan degradation, conserved biosystem; Heparan sulfate degradation, organism-specific biosystem; Heparan sulfate degradation, conserved biosystem; Lysosome, organism-specific biosystem; Lysosome, conserved biosystem; Metabolic pathways, organism-specific biosystem;
Function	N-sulfoglucosamine sulfohydrolase activity; catalytic activity; hydrolase activity; metal ion binding; sulfuric ester hydrolase activity;

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