

Active Recombinant Human GNS, His-tagged

Cat. No. GNS-295H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GNS (Val37-Leu552 & Thr44-Leu552) fused with 10His tag at Cterminal, was expressed in CHO Cells.
Species	Human
Source	CHO
ProteinLength	37-552;44-552 a.a.
Description	The product of this gene is a lysosomal enzyme found in all cells. It is involved in the catabolism of heparin, heparan sulphate, and keratan sulphate. Deficiency of this enzyme results in the accumulation of undegraded substrate and the lysosomal storage disorder mucopolysaccharidosis type IIID (Sanfilippo D syndrome). Mucopolysaccharidosis type IIID is the least common of the four subtypes of Sanfilippo syndrome.
Predicted N Terminal	Val37 & Thr44
Formulation	Supplied as a 0.2 µ filtered solution in Tris, NaCl and Glycerol.
Bio-activity	Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is >250 pmol/min/g.
Molecular Mass	59 & 60 kDa

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Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	6 months from date of receipt, 20 to 70 °C as supplied. Avoid repeated freezethaw cycles.

GENE INFORMATION

Gene Name	GNS glucosamine (N-acetyl)-6-sulfatase [Homo sapiens (human)]
Official Symbol	GNS
Synonyms	GNS; glucosamine (N-acetyl)-6-sulfatase; G6S; N-acetylglucosamine-6-sulfatase; glucosamine-6-sulfatase; EC 3.1.6.14
Gene ID	2799
mRNA Refseq	NM_002076
Protein Refseq	NP_002067
MIM	607664
UniProt ID	P15586
Chromosome Location	12q14
Pathway	Clathrin derived vesicle budding; Glycosaminoglycan degradation; Heparan sulfate degradation; Keratan sulfate degradation

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Function

N-acetylglucosamine-6-sulfatase activity; metal ion binding; protein binding; sulfuric ester hydrolase activity

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