

Active Recombinant Human GNS, His-tagged

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

SPECIFICATION

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| 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 | <p>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.</p> |
| 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

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|----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 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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