

Active Recombinant Human GCNT2 protein, His-tagged

Cat. No. GCNT2-01H Lot. No. (See product label)

SPECIFICATION

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|-------------------------|--|
| Product Overview | Recombinant Human GCNT2 protein, fused to His-tag at C-terminus, was expressed in CHO. |
| Species | Human |
| Source | CHO |
| Description | <p>This gene encodes the enzyme responsible for formation of the blood group I antigen. The i and I antigens are distinguished by linear and branched poly-N-acetyllactosaminoglycans, respectively. The encoded protein is the I-branching enzyme, a beta-1,6-N-acetylglucosaminyltransferase responsible for the conversion of fetal i antigen to adult I antigen in erythrocytes during embryonic development. Mutations in this gene have been associated with adult i blood group phenotype. Alternatively spliced transcript variants encoding different isoforms have been described.</p> |
| Form | Supplied as a 0.2 µm filtered solution in Tris and NaCl. |
| Bio-activity | <p>Measured by its ability to transfer GlcNAc from UDP-GlcNAc to Cy5-labeled Extended G2.</p> <p>0.25 µg of Recombinant Human GCNT2 will convert >50% of its substrate to product, as measured under the described conditions.</p> |
| Molecular Mass | <p>Predicted Molecular Mass: 43.8 kDa</p> <p>SDS-PAGE: 53-67 kDa, reducing conditions</p> |

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|-------------------------------------|---|
| N-terminal Sequence Analysis | Asn26 |
| Endotoxin | <1.0 EU per 1 µg of the protein by the LAL method. |
| Purity | > 95 % |
| Applications | Enzyme Activity |
| Storage | Use a manual defrost freezer and 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. |
| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |

GENE INFORMATION

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|------------------------|--|
| Gene Name | GCNT2 glucosaminyl (N-acetyl) transferase 2 (I blood group) [Homo sapiens (human)] |
| Official Symbol | GCNT2 |
| Synonyms | CCAT; CTRCT13; EC 2.4.1.150; GCNT2; GCNT2C; GCNT5; I beta-1,6-N-acetylglucosaminyltransferase; I-branching beta-1; 6-acetylglucosaminyltransferase; I-branching enzyme; IGNTglucosaminyl (N-acetyl) transferase 5; II; li blood group; MGC163396; N-acetylglucosaminyltransferase; N-acetyllactosaminide beta-1; 6-N-acetylglucosaminyl-transferase; N-acetyllactosaminide beta-1; 6-N-acetylglucosaminyltransferase; NACGT1; NAGCT1; ULG3; bA360O19.2; bA421M1.1; beta-1; 6-N-acetylglucosaminyltransferase 2; cataract; congenital; glucosaminyl (N-acetyl) transferase 2; I-branching enzyme, glucosaminyl (N-acetyl) transferase 2; I- |

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branching enzyme (I blood group); glucosaminyl (N-acetyl) transferase 2; I-branching enzyme (II blood group)

Gene ID 2651

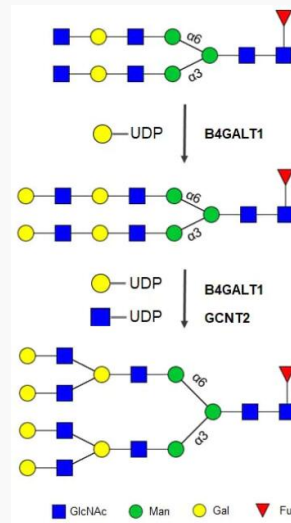
mRNA Refseq NM_001491

Protein Refseq NP_001482

MIM 600429

UniProt ID Q8N0V5

**Recombinant Human
GCNT2 His-tag
Protein/GCNT2
Enzyme Activity
Diagram.**



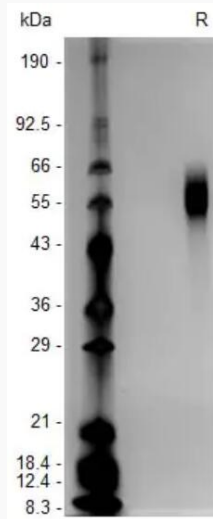
GCNT2 recognizes polylactosamine structure and can tolerate core-6 fucose and its Cy5 derivatives.

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**Recombinant Human
GCNT2 His-tag
Protein, CF SDS-
PAGE.**




1 µg/lane of Recombinant Human GCNT2 His-tag was resolved with SDS-PAGE under reducing (R) conditions and visualized by silver staining, showing bands at 53-63 kDa.


**Recombinant Human
GCNT2 His-tag
Protein, CF
Fluorescent Gel
Mobility Shift**



Lane 1 contained substrate glycan extended G2 (GL303). In the presence of


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rhGCNT2, the glycan was modified, and a mobility shift was observed.

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