

Recombinant human GalNAc Transferase 1/GALNT1 protein

Catalog Number: ATGP3850

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

41-559aa

UniProt No.

Q10472

NCBI Accession No.

NP_065207

Alternative Names

Polypeptide N-acetylgalactosaminyltransferase 1, Polypeptide GalNAc transferase 1, GalNAc-T1, pp-GaNTase 1, Protein-UDP acetylgalactosaminyltransferase 1, UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 1

PRODUCT SPECIFICATION

Molecular Weight

60.4 kDa (528aa)

Concentration

1mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 300pmol/min/ug, and is defined as the amount of enzyme that transfer 1.0pmole of GalNAc from UDP-GalNAc to peptide EA2 per minute per minute at pH 8.0 at 37C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

GALNT1, also known as polypeptide N-acetylgalactosaminyltransferase 1, is a member of the GalNAc-T family of enzymes. It utilizes UDP-GalNAc as the nucleotide donor substrate to modify serine or threonine residues of proteins trafficking through the secretory pathway. Structurally, GalNAc-Ts consist of an N-terminal catalytic domain tethered by a short linker to a C-terminal ricin-like lectin domain containing three potential carbohydrate-binding sites. Also, this protein is involved in the glycosylation of proteins essential for bone formation such as osteopontin and bone sialoprotein. Recombinant human GALNT1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

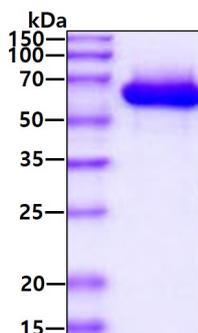
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TKVYPDNLPT TSVVIVFHNE AWSTLLRTVH SVINRSPRHM IEEIVLVDDA SERDFLKRPL ESYVKKLKVP VHVIRMEQRS
GLIRARLKGA AVSKGQVITF LDAHCECTVG WLEPLLARIK HDRRTVVCPI IDVISDDTFE YMAGSDMTYG GFNWKLNFRW
YPVPQREMDR RKGDRTPVVR TPTMAGGLFS IDRDFYQEIG TYDAGMDIWG GENLEISFRI WQCGGTLEIV TCSHVGHVFR
KATPYTFPGG TGQIINKNNR RLAEVWMDEF KNFFYIISPG VTKVDYGDIS SRVGLRHKLQ CKPFSWYLEN IYPDSQIPRH
YFSLGEIRNV ETNQCLDNMA RKENEKVGIF NCHGMGGNQV FSYTANKEIR TDDLCLDVSK LNGPVTMLKC HHLKGNQLWE
YDPVKLTLQH VNSNQCLDKA TEEDSQVPSI RDCNGSRSQQ WLLRNVTLPE IF<HHHHHH>

General References

Gerken, T.A. et al. (2011) J. Biol. Chem. 286:14493-14507.
Partt, M.R. et al. (2004) Chem. Biol. 11:1009-1016.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain