
Product Data Sheet

Product Name: GALNT1 Human

Cat. No.: GP21641

Batch No.: 1

Product Data

Purity	>98%	Source	Sf9, Insect cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Polypeptide N-acetylgalactosaminyltransferase 1; GALNT1; GALNAC-T1		
Amino Acid Sequence	ADPGLPAGDV LEPVQKPHEG PGEMGKPVVI PKEDQEKMKE MFKINQFNLN ASEMIALNRSLPDVRLEGCK TKVYPDNLPT TSVVIVFHNE AWSTLLRTVH SVINRSPRHM IEEIVLVDDASERDFLKRPL ESYVKKLKVP VHVIRMEQRS GLIRARLKGA AVSKGQVITF LDAHCECTVGWLEPLLARIK HDRRTVVCP IDVISDDTFE YMAGSDMTYG GFNWKLNFRW YPVPQREMDRRKGDRTL PVR TPTMAGGLFS IDRDFYQEI TYDAGMDIWG GENLEISFRI WQCGGTLEIVTCSHVGHVFR KATPYTFPGG TGQIINKNNR RLAEVWMDEF KNFFYIISPG VTKVDYGDISSRVGLRHKLQ CKPFSWYLEN IYPDSQIPRH YFSLGEIRNV ETNQCLDNMA RKENEKVGIFNCHGMGGNQV FSYTANKEIR TDDLCLDVSK LNGPVTMLKC HHLKGNQLWE YDPVKLTLQHVNSNQCLDKA TEEDSQVPSI RDCNGSRSQQ WLLRNVTLP IFHHHHHH.		
Formulation	GALNT1 protein solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl and 10% glycerol.		

Introduction

Polypeptide N-Acetylgalactosaminyltransferase 1 (Galnt1) is a part of the UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase (GalNAc-T) family of enzymes. The initial reaction in O-linked oligosaccharide biosynthesis is catalyzed by Galnt1, the transfer of an N-acetyl-D-galactosamine residue to a serine or threonine residue on the protein receptor. Moreover, Galnt1 is implicated in the glycosylation of proteins vital for bone formation for instance osteopontin and bone sialoprotein.

Biological Activity

The specific activity which is defined as the amount of enzyme that transfer 1.0 pmole of

Caution: Product has not been fully validated for medical applications. For research use only.

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GalNAc from UDP-GalNAc to peptide EA2 per minute at pH 8.0 at 37C is > 300 pmol/min/ug.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GALNT1 produced in Sf9 Insect cells is a single, glycosylated polypeptide chain containing 528 amino acids (41-559a.a.) and having a molecular mass of 60.4kDa (Molecular size on SDS-PAGE will appear at approximately 50-70kDa). GALNT1 is expressed with an 9 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

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