

Recombinant human B3GAT1 protein

Catalog Number: ATGP3892

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

28-334aa

UniProt No.

Q9P2W7

NCBI Accession No.

NP_473366

Alternative Names

B3GAT1, CD57, GLCATP, GLCUATP, HNK1, LEU7, NK-1, NK1, Beta-1,3-glucuronyltransferase 1, Glucuronosyltransferase P, GlcAT-P, UDP-GlcUA:glycoprotein beta-1,3-glucuronyltransferase, GlcUAT-P

PRODUCT SPECIFICATION

Molecular Weight

62.3 kDa (549aa)

Concentration

0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 0.1M NaCl, 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

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

Tag

hIgG-His-Tag

Application

SDS-PAGE

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.

BACKGROUND

Description

B3GAT1, also known as galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 1, is a key enzyme during the biosynthesis of the carbohydrate epitope HNK-1. These enzymes exhibit strict acceptor specificity, recognizing nonreducing terminal sugars and their anomeric linkages. This protein is expressed as a

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carbohydrate epitope that contains a sulfoglucuronyl residue in several adhesion molecules of the nervous system. Also, the enzyme activity was found to be enhanced in the presence of sphingomyelin and phosphatidylinositol. This protein functions as the key enzyme in a glucuronyl transfer reaction during the biosynthesis of the carbohydrate epitope HNK-1. Recombinant Human B3GAT1, fused to hlgG-His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

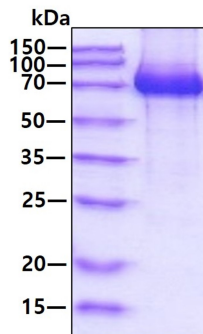
<ADP>TLAPLLA VHKDEGSDPR RETPPGADPR EYCTSDRDIV EVVRTEYVYT RPPPWSDTLP TIHVVTPTYS RPVQKAELTR MANTLLHVPN LHWLVEDAP RRTPLTARLL RDTGLNYTHL HVETPRNYKL RGDARDPRIP RGTMQRNAL RWLRETFPRN SSQPGVVYFA DDDNTYSLEL FEEMRSTRRV SVWPVAFVGG LRYEAPRVNG AGKVVGWKT V FDPHRPFAID MAGFAVNLRL ILQRSQAYFK LRGVKGGYQE SLLRELVT L NDLEPKAANC TKILVWHTRT EKPVLVNEGK KGFTDPSVEI <LEPKSCDKTH TCPPCPAPEL LGGPSVFLFP PKPKDTLMIS RTPEVTCVVV DVSHEDPEVK FNWYVDGVEV HNAKTKPREE QYNSTYRVVS VLTVLHQDWL NGKEYKCKVS NKALPAPIEK TISKAKGQPR EPQVYTLPPS RDELTKNQVS LTCLVKGFYP SDIAVEWESN GQPENNYKTT PPVLDSDGSF FLYSKLTVDK SRWQQGNVFS CSVMHEALHN HYTQKSLSL S PGKHHHHHH>

General References

Terayama K., et al, (1997) Proc. Natl. Acad. Sci. USA 94:6093-6098.
Kakuda, S., et al, (2005) Glycobiology 2:203-210.

DATA

SDS-PAGE



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