Data Sheet (Cat.No.TMPH-02292)

TargetMol

B3GNT7 Protein, Human, Recombinant (His & Myc)

General Information

Synonyms:	Beta-1,3-Gn-T7;3-N-acetylglucosaminyltransferase 7;BGnT-7;Beta-1,3-N-acetylglucosaminyltransferase 7;UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 7;B3GNT7;Beta3Gn-T7
Protein Construction:	27-401 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q8NFL0
Molecular Weight:	50.5 kDa (predicted)
AA Sequence:	RSLTPGQFLQEPPPPTLEPQKAQKPNGQLVNPNNFWKNPKDVAAPTPMASQGPQAWDVTTTNCSANINLT HQPWFQVLEPQFRQFLFYRHCRYFPMLLNHPEKCRGDVYLLVVVKSVITQHDRREAIRQTWGRERQSAGGG RGAVRTLFLLGTASKQEERTHYQQLLAYEDRLYGDILQWGFLDTFFNLTLKEIHFLKWLDIYCPHVPFIFKGDD DVFVNPTNLLEFLADRQPQENLFVGDVLQHARPIRRKDNKYYIPGALYGKASYPPYAGGGGFLMAGSLARRL HHACDTLELYPIDDVFLGMCLEVLGVQPTAHEGFKTFGISRNRNSRMNKEPCFFRAMLVVHKLLPPELLAMW GLVHSNLTCSRKLQVL

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

N-acetyl glucosamine (GlcNAc) transferase that catalyzes the transfer of GlcNAc via a beta1->3 linkage from UDP-GlcNAc to the non-reducing terminal galactose (Gal) in the linearly growing chain of N- and O-linked keratan sulfate proteoglycans. Cooperates with B4GALT4 galactosyltransferase and CHST6 and CHST1 sulfotransferases to construct and elongate mono- and disulfated disaccharide units [->3Galbeta1->4(6-sulfoGlcNAcbeta)1->] and [->3(6-sulfoGalbeta)1->4(6-sulfoGlcNAcbeta)1->] within keratan sulfate polymer. Involved in biosynthesis of N-linked keratan sulfate proteoglycans in cornea, with an impact on proteoglycan fibril organization and corneal transparency. May play a role in the maintenance of tissue architecture by suppressing cellular motility and invasion.

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