Recombinant QTGAL protein (His tag)

Catalog Number	549784
Synonyms	QTGAL; Beta-1,3-N-acetylglucosaminyltransferase 8; BGnT-8; Beta-1,3-Gn-T8; Beta3Gn-T8; UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase-like protein 1; BGnT-like protein 1; Beta1,3-N-acetylglucosaminyltransferase-like protein 1; Beta3Gn-T-like protein 1; Beta3GnTL1
Species	Human
Expression System	E. coli
Accession	Q67FW5
Molecular Weight	Predictes a molecular mass of 40.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Amino Acid Sequence	MQAHVSIILP VHNAEPWLDE CLRSVLQQDF EGTMELSVFN DASKDKSGAI IEKWRVKLED SGVHVIIGGH DSPSPRGVGY AKNQAVAQSS GSYLCFLDSD DVMMPQRVRL QHEAAVQHPS SIIGCRVRRD PPNSTERYTR WINQLTPEQL LTQVFTSNGP TVIMPTWFCS RAWFSHVGPF NEGGQGVPED LLFFYEHLRK GGGVIRVDQS LLLYRHHPQA ATHCVLETTI WTHRVRFLEE QALPRWAAFT IWNAGKQGRR LYRSLTAGSQ RKVVAFCDVD ENKIRKGFYC HEDSQERPKP RIPILHFRAA RPPFVICVKL DLTGGAFEDN LRSLHLQEGQ DFLHFSLEHH HHHH
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-346 aa (Q67FW5) were fused with C-terminal 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

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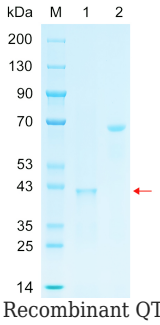
Recombinant Queuosine-tRNA galactosyltransferase (QTGAL) fragment (residues 1-346) from Homo sapiens, designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the enzyme, facilitating investigations into its role in tRNA modification and translational regulation.
Queuosine-tRNA galactosyltransferase (QTGAL), encoded by the B3GNTL1 gene, is a glycosyltransferase that catalyzes the galactosylation of cytoplasmic tRNA(Tyr) at the queuosine-modified position 34. This modification forms galactosyl-queuosine(34), which is essential for regulating protein translation by slowing elongation at cognate codons and suppressing stop codon readthrough. The enzyme is localized in the cytoplasm, underscoring its direct involvement in cytoplasmic tRNA processing and translational control mechanisms.

Validation

SDS-PAGE



Recombinant QTGAL protein (His tag) SDS-PAGE
M: Marker; Lane 1: QTGAL; Lane 2: BSA