Recombinant RFNG protein (His tag)

Catalog Number	549968
Synonyms	O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
Species	Human
Expression System	E. coli
Accession	Q9Y644
Molecular Weight	Predictes a molecular mass of 32.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	53-331
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 53-331 aa (Q9Y644) were fused with 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

Description	Recombinant Human Beta-1,3-N-acetylglucosaminyltransferase radical fringe (RFNG) fragment (residues 53-331) is a stable, soluble protein unit designed for structural and biochemical studies. This fragment enables investigation into the glycosyltransferase activity that modulates Notch signaling pathways, crucial for developmental processes. The full-length Beta-1,3-N-acetylglucosaminyltransferase radical fringe (RFNG) is a Golgi apparatus membrane-localized glycosyltransferase that initiates elongation of O-linked fucose residues on EGF-like repeats in Notch molecules. It enhances NOTCH1 activation by ligands DLL1 and JAG1, playing essential roles in limb formation and neurogenesis. As a single-pass type II membrane protein, RFNG modifies specific EGF-like domains to regulate Notch signaling pathways critical for cellular differentiation and development.