RPN2/Ribophorin II Protein, Human (HEK293, His)

Cat. No.:	HY-P76575
Synonyms:	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2; RIBIIR; RPN-II; RPN2
Species:	Human
Source:	HEK293
Accession:	P04844/NP_002942.2 (L23-V540)
Gene ID:	6185
Molecular Weight:	Approximately 60 kDa

PROPERTIES

AA Sequence	LTPTHYLTKH DVERLKASLD RPFTNLESAF YSIVGLSSLG AQVPDAKKAC TYIRSNLDPS NVDSLFYAAQ ASQALSGCEI SISNETKDLL LAAVSEDSSV TQIYHAVAAL SGFGLPLASQ EALSALTARL SKEETVLATV QALQTASHLS QQADLRSIVE EIEDLVARLD ELGGVYLQFE EGLETTALFV AATYKLMDHV GTEPSIKEDQ VIQLMNAIFS KKNFESLSEA FSVASAAAVL SHNRYHVPVV VVPEGSASDT HEQAILRLQV TNVLSQPLTQ ATVKLEHAKS VASRATVLQK TSFTPVGDVF ELNFMNVKFS SGYYDFLVEV EGDNRYIANT VELRVKISTE VGITNVDLST VDKDQSIAPK TTRVTYPAKA KGTFIADSHQ NFALFFQLVD VNTGAELTPH QTFVRLHNQK TGQEVVFVAE PDNKNVYKFE LDTSERKIEF DSASGTYTLY LIIGDATLKN PILWNVADVV IKFPEEEAPS TVLSQNLFTP KQEIQHLFRE PEKRPPTV
Biological Activity	Data is not available.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	RPN2/Ribophorin II, a subunit of the oligosaccharyl transferase (OST) complex, plays a crucial role in catalyzing the initial transfer of a defined glycan (Glc(3)Man(9)GlcNAc(2) in eukaryotes) from the lipid carrier dolichol-pyrophosphate to an asparagine residue within an Asn-X-Ser/Thr consensus motif in nascent polypeptide chains. This pivotal step marks the initiation of protein N-glycosylation, a cotranslational process occurring during protein synthesis. The OST complex, in which RPN2/Ribophorin II is an integral component, associates with the Sec61 complex at the translocon complex, facilitating the translocation of proteins across the endoplasmic reticulum (ER) membrane. The synergistic presence of all subunits within the OST complex is essential for achieving maximal enzyme activity. In essence, RPN2/Ribophorin II's involvement in protein modification, specifically protein glycosylation, underscores its fundamental role in the initial stages of N-glycosylation, contributing to the structural and functional diversity of glycoproteins in the cell.

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