Recombinant IMP4 protein (His tag)

Catalog Number	540989
Synonyms	U3 snoRNP protein IMP4; Brix domain-containing protein 4
Species	Human
Expression System	E. coli
Accession	Q96G21
Molecular Weight	Predictes a molecular mass of 35.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	1-291
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-291 aa (Q96G21) 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 U3 snoRNP protein IMP4 fragment (residues 1-291) is a high-purity protein designed for studying the Brix domain's role in ribosome biogenesis. This fragment is ideal for functional assays, structural studies, and investigating pre-rRNA processing mechanisms. The full-length U3 small nucleolar ribonucleoprotein protein IMP4 is a key component of the U3 snoRNP complex and the small subunit (SSU) processome, the first precursor of the small eukaryotic ribosomal subunit. It is essential for early cleavage events during pre-18S ribosomal RNA processing, contributing to RNA folding, modifications, rearrangements, and cleavage. Located in the nucleus and nucleolus, IMP4 works with other ribosome biogenesis factors and the RNA exosome to ensure proper ribosomal assembly and targeted degradation of pre-ribosomal RNA. The provided fragment encompasses the complete Brix domain, enabling focused research on its specific functions in these critical cellular processes.