Recombinant PRP31 protein (His tag)

Catalog Number	543281
Synonyms	Pre-mRNA-processing factor 31; Serologically defined breast cancer antigen NY-BR-99; U4/U6 snRNP 61 kDa protein; Protein 61K; hPrp31
Species	Human
Expression System	E. coli
Accession	Q8WWY3
Molecular Weight	Predictes a molecular mass of 44.66 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	47-429
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 47-429 aa (Q8WWY3) 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 U4/U6 small nuclear ribonucleoprotein Prp31 (PRPF31) Fragment (aa 47-429) is a high-purity protein designed for studying pre-mRNA splicing mechanisms. This fragment encompasses the essential Nop domain (aa 215-333), making it an ideal tool for investigating domain-specific functions in spliceosome assembly and tri-snRNP complex formation. The full-length PRPF31 protein, also known as Pre-mRNA-processing factor 31, plays a critical role in pre-mRNA splicing as a core component of the spliceosome. It is specifically required for the assembly of the U4/U5/U6 tri-snRNP complex, one of the fundamental building blocks of the spliceosome machinery. PRPF31 localizes predominantly to nuclear speckles and Cajal bodies, subnuclear structures involved in RNA processing and splicing factor storage. Its function has been validated through multiple studies demonstrating its necessity for proper spliceosome formation and activity, highlighting its significance in fundamental gene expression processes.