Recombinant SEN15 protein (His tag)

Catalog Number	547828
Synonyms	SEN15 homolog; HsSEN15; tRNA-intron endonuclease Sen15
Species	Human
Expression System	E. coli
Accession	Q8WW01
Molecular Weight	Predictes a molecular mass of 16.72 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	38-171
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 38-171 aa (Q8WW01) 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 tRNA-splicing endonuclease subunit Sen15 (TSEN15) fragment (residues 38-171) is a high-purity protein preparation ideal for structural and functional studies. This 134-amino acid fragment represents a stable, soluble domain of the SEN15 homolog, optimized for biochemical characterization and interaction studies of this essential tRNA processing enzyme. The full-length tRNA-splicing endonuclease subunit Sen15 (HsSEN15) is a non-catalytic component of the tRNA-splicing endonuclease complex, which plays a critical role in pre-tRNA processing by identifying and cleaving splice sites to release introns. This complex cleaves pre-tRNA at both 5' and 3' splice sites, generating an intron and two tRNA half-molecules with specific terminal modifications. Interestingly, the tRNA splicing endonuclease also participates in mRNA processing through associations with pre-mRNA 3'-end processing factors, suggesting dual functionality in both tRNA and mRNA maturation pathways. The protein localizes primarily to the nucleus, with potential transient localization in the nucleolus, highlighting its central role in nuclear RNA processing machinery.