Recombinant SPOUT protein (His tag)

Catalog Number	540471
Synonyms	uridine-N(3); Centromere protein 32; CENP-32; Kinetochore-associated protein; Methyltransferase C9orf114; Ribosomal RNA methyltransferase SPOUT1; SPOUT domain-containing methyltransferase 1
Species	Human
Expression System	E. coli
Accession	Q5T280
Molecular Weight	Predictes a molecular mass of 43.67 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	1-376
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-376 aa (Q5T280) 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 SPOUT1 protein fragment (residues 1-376), a stable and soluble construct ideal for studying its methyltransferase activity on 28S rRNA and its roles in mitotic spindle organization and kinetochore function. The full-length 28S rRNA (uridine-N(3))-methyltransferase (SPOUT1) is an S-adenosyl-L-methionine-dependent methyltransferase that specifically methylates uridine at the N3 position in 28S rRNA. It is critical for proper mitotic progression, facilitating centrosome association with spindle poles during metaphase and contributing to chromosome alignment. SPOUT1 also promotes centrosome maturation by recruiting AKAP9 and regulates MIR145 expression post-transcriptionally. Subcellularly, it localizes to the cytoplasm (spindle, centrosome) and kinetochore, underscoring its involvement in cytoskeletal and chromosomal processes.