Recombinant THUM2 protein (His tag)

Catalog Number	543499
Synonyms	guanine-N(2); THUMP domain-containing protein 2
Species	Human
Expression System	E. coli
Accession	Q9BTF0
Molecular Weight	Predictes a molecular mass of 25.14 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	204-417
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 204-417 aa (Q9BTF0) 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 THUMPD2 (204-417) is a high-purity, stable protein fragment derived from the U6 snRNA (guanine-N(2))-methyltransferase THUMPD2. This fragment is designed for structural and biochemical studies, enabling researchers to explore the enzyme's role in RNA modification and spliceosome function without the complexities of the full-length protein. THUMPD2 is a catalytic subunit of the THUMPD2-TRM112 methyltransferase complex in humans, specifically mediating S-adenosyl-L-methionine-dependent N(2)-methylation of guanosine nucleotides, likely at position 72 (m2G72), in the U6 snRNA of the major spliceosome. This modification influences constitutive splicing efficiency, particularly for introns with suboptimal splice sites, and can impact final mRNA levels, highlighting its importance in gene expression regulation. The protein is localized to the nucleus, where it performs its essential functions in RNA processing.