Recombinant NAT10 protein (His tag)

Catalog Number	545895
Synonyms	18S rRNA cytosine acetyltransferase; N-acetyltransferase 10; N-acetyltransferase-like protein; hALP
Species	Human
Expression System	E. coli
Accession	Q9H0A0
Molecular Weight	Predictes a molecular mass of 31.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	690-952
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 690-952 aa (Q9H0A0) 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 RNA Cytidine Acetyltransferase (NAT10) Fragment (aa 690-952) - a highly purified protein fragment ideal for structural studies and biochemical characterization of this essential RNA-modifying enzyme involved in mRNA stability, translation efficiency, and ribosome biogenesis. RNA cytidine acetyltransferase (NAT10) is a multifunctional enzyme that catalyzes the formation of N(4)-acetylcytidine (ac4C) modifications on mRNAs, 18S rRNA, and tRNAs. This post-transcriptional modification enhances mRNA stability and translation efficiency, with ac4C frequently present within wobble cytidine sites. NAT10 is essential for early nucleolar cleavages during 18S rRNA synthesis and functions as part of the small subunit (SSU) processome. The enzyme also demonstrates protein lysine acetyltransferase activity in vitro, though the physiological relevance remains uncertain. NAT10 localizes primarily to the nucleus and nucleolus during interphase, redistributing to the perichromosomal layer and midbody during telophase. Additionally, it activates telomerase activity and regulates centrosome duplication through acetylation of CENATAC during mitosis.