Recombinant TIAR protein (His tag)

Catalog Number	540157
Synonyms	TIA-1-related protein
Species	Human
Expression System	E. coli
Accession	Q01085
Molecular Weight	Predictes a molecular mass of 32.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	1-278
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-278 aa (Q01085) 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 Nucleolysin TIAR (TIA-1-related protein) Fragment (residues 1-278) is a high-purity protein encompassing all three RNA recognition motifs (RRM 1, 2, and 3). This fragment serves as an essential tool for investigating RNA-binding, alternative splicing regulation, and stress granule dynamics in cellular stress response pathways. Nucleolysin TIAR, encoded by the TIAL1 gene, is an RNA-binding protein with critical roles in post-transcriptional gene regulation and cellular stress response. It binds preferentially to uridine-rich RNA sequences and functions in alternative pre-mRNA splicing, particularly activating exons with weak 5' splice sites. Following cellular stress and phosphorylation of EIF2S1/EIF2A, TIAR facilitates the assembly of cytoplasmic stress granules by recruiting untranslated mRNAs. The protein also exhibits nucleolytic activity against target cells and may participate in apoptosis. TIAR localizes primarily to the nucleus under normal conditions but accumulates in cytoplasmic stress granules following cellular damage, with additional presence in cytolytic granules. The recombinant fragment (residues 1-278) contains all three RRM domains, enabling focused study of RNA-binding properties and splicing regulation mechanisms without interference from other functional regions.