Recombinant YTHD3 protein (His tag)

Catalog Number	543022
Synonyms	DF3
Species	Human
Expression System	E. coli
Accession	Q7Z739
Molecular Weight	Predictes a molecular mass of 24.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	390-585
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 390-585 aa (Q7Z739) 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 YTHDF3 (YTH domain-containing family protein 3) Fragment (aa 390-585) - A high-purity protein fragment containing the complete YTH domain (aa 416-550), specifically designed for studying m6A RNA binding and regulation of RNA stability. This fragment serves as an ideal tool for investigating the molecular mechanisms of N6-methyladenosine recognition and RNA metabolism. YTHDF3 is a key reader protein that specifically recognizes and binds N6-methyladenosine (m6A)-modified RNAs, playing a crucial role in regulating mRNA stability and processing. The full-length protein acts as a regulator of mRNA degradation by interacting with the CCR4-NOT complex and PAN3, and shares redundant functions with YTHDF1 and YTHDF2 in mediating mRNA degradation and cellular differentiation. YTHDF3 also binds to m6A-containing circular RNAs and promotes formation of phase-separated membraneless compartments such as P-bodies and stress granules through liquid-liquid phase separation. Additionally, it exhibits antiviral activity against HIV-1 by incorporating into viral particles and reducing infectivity. The protein localizes primarily to the cytoplasm, cytosol, P-bodies, and stress granules, positioning it at key sites of RNA metabolism and regulation.