

YTHDF2 recombinant protein

Recombinant YTHDF2 protein

CATALOG #
AAA59757

HOST
Baculovirus

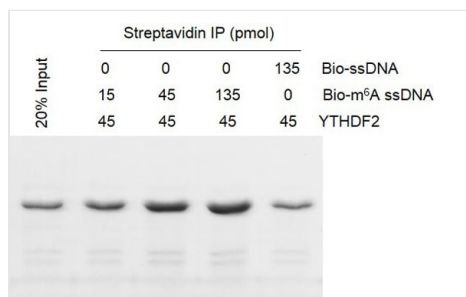
PRODUCT SYNONYMS

YTHDF2; Recombinant YTHDF2 protein; YTH N6-Methyladenosine RNA Binding Protein 2; HGRG8; YTHDF2 recombinant protein

PRODUCT SPECIFICATIONS

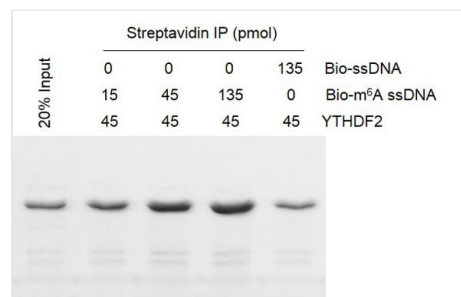
Host	Baculovirus
Form/Format	Recombinant YTHDF2 protein is supplied in 25mM HEPES pH7.5, 300mM NaCl, 5% glycerol, 0.04% Triton X-100, and 0.2mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant YTHDF2 protein is suitable for use in protein-protein interaction and RNA binding assays. HTRF Assay: 3uM m6A ssDNA oligos (5'-GTTGG/ m6A/CTT-3') were incubated with YTHDF2 protein in binding buffer including 50mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hour at RT. Anti-DYKDDDDK antibody was used to detect reaction products. Binding Assay: 45 pmol biotinylated m6A ssDNA oligos (DNA sequence: 5'-GTTGCCTGTTCTGTTGG/m6A/ CTTGCCTGT-3') were incubated with YTHDF2 protein in binding buffer including 25mM Tris-HCl pH 7.4, 150mM NaCl, 5% glycerol, 0.1% Triton X-100 for 3 hr at 4C. DNA-YTHDF2 compounds were incubated with streptavidin beads for 1 hr at 4C and pull-down products were run on a 10% SDS-PAGE gel, stained with Coomassie Blue. Biotinylated, unmethylated ssDNA oligos were used as negative control. YTHDF2 preferentially binds to ssDNA with m6A modification compared with unmodified ssDNA.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



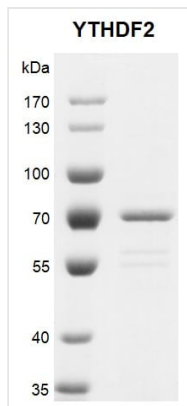
Application Data

HTRF assay for YTHDF2 activity 3 uM oligo m6A ssDNA (GTTGG/m6A/CTT) was incubated with different concentrations of YTHDF2 protein in a 10 ul reaction system containing 50 mM HEPES-NaOH pH 7.5, 0.1% BSA for 1 hour, then 10 ul of DYKDDDDK antibody and SA-XL665 mixture (1:100 dilution in the same buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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SDS-PAGE

Recombinant YTHDF2 protein gel. Recombinant YTHDF2 protein was run on an 10% SDS-PAGE gel and stained with Coomassie Blue. MW: 63.6 kDa Purity: > 90%

ADDITIONAL INFORMATION

Related Product Information for YTHDF2 recombinant protein

Short Description: Recombinant YTHDF2 protein was expressed in a baculovirus expression system as the full-length protein (accession number NP_057342.2) with an N-terminal DYKDDDDK-Tag. The molecular weight of YTHDF2 is 63.6 kDa. It is suitable for use in protein-protein interaction studies and RNA binding assays.

Background: N6-methylated adenine (m6A) is prevalently present in nearly all RNA types and can be found in all organisms from bacteria to humans. It preferentially appears around stop codons and within long internal exons in mammalian messenger RNAs. m6A plays an important role in the efficiency of mRNA splicing, processing, translation efficiency, editing and mRNA stability. m6A is also found in other RNA molecules, such as primary miRNA (pri-miRNAs). YTHDF2 (YT521-B homology domain family 2, also known as CAHL, HGRG8, NY-REN-2) is a member of the YTH (YT521-B homology) superfamily containing YTH domain. Human YTH domain family proteins include three members, YTHDF1-3, which mainly localized in the cytoplasm. YTHDF proteins contain a highly conserved single-stranded RNA-binding domain which can specifically recognize and bind m6A-containing RNAs. An important role of YTHDF2 is in regulating mRNA stability. YTHDF2 recognizes many m6A-containing mRNAs that are not being actively translated and recruits them to cytoplasmic processing (P) bodies for degradation. YTHDF2 preserves 5'UTR methylation of stress- induced transcripts and promotes cap-independent mRNA translation by competitive binding and limiting the m6A 'eraser' FTO from demethylation.

Product Categories/Family for YTHDF2 recombinant protein

Recombinant Proteins; Transcription

NCBI AND UNIPROT INFORMATION

Molecular Weight

Molecular weight of YTHDF2 is 63.6kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/ythdf2-recombinant-protein-baculovirus/59757>