

YTHDF1 recombinant protein

Recombinant YTHDF1 protein

CATALOG #
AAA59780

HOST
Baculovirus

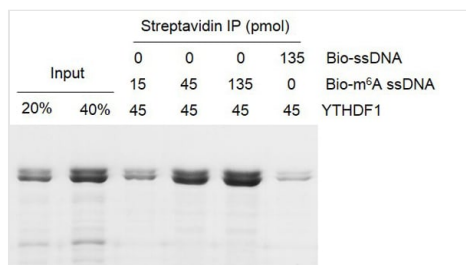
PRODUCT SYNONYMS

YTHDF1; Recombinant YTHDF1 protein; YTH N6-Methyladenosine RNA Binding Protein 1; Dermatomyositis Associated With Cancer Putative Autoantigen 1; DACA-1; YTH Domain Family Protein 1; YTHDF1 recombinant protein

PRODUCT SPECIFICATIONS

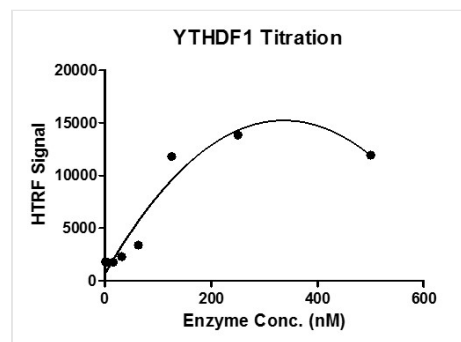
Host	Baculovirus
Form/Format	Recombinant YTHDF1 protein is supplied at a concentration of 0.15ug/ul in 25mM HEPES pH7.5, 300mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant YTHDF1 protein is suitable for use in protein-protein interaction, RNA binding assay. HTRF Assay: 3uM m6A ssDNA oligos (DNA sequence: 5'-GTTGG/ m6A/CTT-3') were incubated with YTHDF1 protein in binding buffer including 50mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hr. at room temperature. Anti-DYKDDDDK antibody was used to detect reaction products. Binding Assay: 45 pmol biotinylated m6A ssDNA oligos (5'-GTTGCCTGTTCTGTTGG/m6A/CTTGCCTGT-3') were incubated with YTHDF1 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. The DNA-YTHDF1 compounds were incubated with streptavidin beads for 1 hour at 4C. YTHDF1 pulled down by streptavidin beads were run on a 10% SDS-PAGE gel and stained with Coomassie Blue. Biotinylated, unmethylated ssDNA oligos were used as negative control.. The binding assay result shows that YTHDF1 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



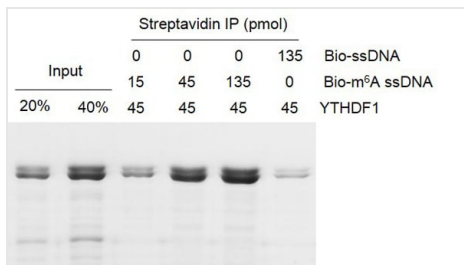
SDS-PAGE

Binding Assay for Recombinant YTHDF1 protein. 45 pmol biotinylated m6A ssDNA oligos (5'-GTTGCCTGTTCTGTTGG/m6A/CTTGCCTGT-3') were incubated with YTHDF1 protein in binding buffer for 3 hr at 4C. DNA-YTHDF1 compounds were incubated with streptavidin beads for 1 hour at 4C, and pull-down products were run on a 10% SDS-PAGE gel, stained with Coomassie Blue. (Biotinylated,unmethylated ssDNA oligos used as negative control). YTHDF1 preferentially binds to ssDNA with m6A modifications compared with unmodified ssDNA.



Application Data

HTRF Assay for Recombinant YTHDF1 protein activity. 3 uM m6A ssDNA oligos (DNA sequence: 5'-GTTGG/ m6A/CTT-3') were incubated with YTHDF1 protein in binding buffer including 50 mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hour at room temperature. Anti-DYKDDDDK antibody was used to detect reaction products.



SDS-PAGE

Recombinant YTHDF1 protein gel. Recombinant YTHDF1 protein was run on an 8% SDS-PAGE gel and stained with Coomassie Blue. MW: 62.1 kDa Purity: > 80%

ADDITIONAL INFORMATION

Related Product Information for YTHDF1 recombinant protein

Short Description: Recombinant YTHDF1 protein was expressed in a baculovirus expression system as the full-length protein (accession number NP_060268.2) with an N-terminal DYKDDDDK-Tag. The molecular weight of YTHDF1 is 62.1 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 also takes place in other RNA molecules, such as primary miRNA (pri-miRNAs). YTHDF1 (YT521-B homology domain family 1, also known as C20orf21, DACA-1) 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 comprise a highly conserved single-stranded RNA-binding domain which specifically recognizes and binds m6A-containing RNAs. A important role of YTHDF1 is regulating mRNA translation efficiency. YTHDF1 promotes ribosome loading to m6A-containing mRNAs and interacts with translation initiation factors eIF3 (EIF3A or EIF3B) to facilitate translation initiation.

Product Categories/Family for YTHDF1 recombinant protein

[Recombinant Proteins](#); [Transcription](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	31377750
NCBI GeneID	54915
NCBI Accession #	NP_060268.2
NCBI GenBank Nucleotide #	NM_017798.3
UniProt Accession #	Q9BYJ9; Q8N3G5; Q8TBT1; Q96AN4; Q96S57; Q9BTI7; Q9NX79
Molecular Weight	60,874 Da
NCBI Official Full Name	YTH domain family protein 1
NCBI Official Synonym Full Names	YTH domain family, member 1
NCBI Official Symbol	YTHDF1
NCBI Official Synonym Symbols	C20orf21
NCBI Protein Information	YTH domain family protein 1; DACA-1; YTH domain family 1; dermatomyositis associated with cancer putative autoantigen 1
UniProt Protein Name	YTH domain family protein 1
UniProt Gene Name	YTHDF1
UniProt Synonym Gene Names	C20orf21; DACA-1
UniProt Entry Name	YTHD1_HUMAN

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/ythdf1-recombinant-protein-baculovirus/59780>