

YTHDF1 Antibody (aa1-50)
Rabbit Polyclonal Antibody
Catalog # ALS15978**Specification****YTHDF1 Antibody (aa1-50) - Product Information**

Application	IHC
Primary Accession	O9BYJ9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61kDa KDa

YTHDF1 Antibody (aa1-50) - Additional Information**Gene ID** 54915**Other Names**

YTH domain-containing family protein 1, Dermatomyositis associated with cancer putative autoantigen 1, DACA-1, YTHDF1, C20orf21

Target/Specificity

YTHDF1 Antibody detects endogenous levels of total YTHDF1 protein.

Reconstitution & Storage

Store at -20°C for up to one year.

Precautions

YTHDF1 Antibody (aa1-50) is for research use only and not for use in diagnostic or therapeutic procedures.

YTHDF1 Antibody (aa1-50) - Protein Information**Name** YTHDF1 {ECO:0000303|Ref.4, ECO:0000312|HGNC:HGNC:15867}**Function**

Specifically recognizes and binds N6-methyladenosine (m6A)- containing mRNAs, and regulates their stability (PubMed:24284625, PubMed:32492408, PubMed:26318451). M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in mRNA stability and processing (PubMed:24284625, PubMed:32492408). Acts as a regulator of mRNA stability by promoting degradation of m6A- containing mRNAs via interaction with the CCR4-NOT complex (PubMed:32492408). The YTHDF paralogs (YTHDF1, YTHDF2 and YTHDF3) shares m6A-containing mRNAs targets and act redundantly to mediate mRNA degradation and cellular

differentiation (PubMed: [28106072](http://www.uniprot.org/citations/28106072)), PubMed: [32492408](http://www.uniprot.org/citations/32492408)). Required to facilitate learning and memory formation in the hippocampus by binding to m6A-containing neuronal mRNAs (By similarity). Acts as a regulator of axon guidance by binding to m6A-containing ROBO3 transcripts (By similarity). Acts as a negative regulator of antigen cross-presentation in myeloid dendritic cells (By similarity). In the context of tumorigenesis, negative regulation of antigen cross-presentation limits the anti-tumor response by reducing efficiency of tumor-antigen cross-presentation (By similarity). Promotes formation of phase-separated membraneless compartments, such as P-bodies or stress granules, by undergoing liquid-liquid phase separation upon binding to mRNAs containing multiple m6A-modified residues: polymethylated mRNAs act as a multivalent scaffold for the binding of YTHDF proteins, juxtaposing their disordered regions and thereby leading to phase separation (PubMed: [31388144](http://www.uniprot.org/citations/31388144), PubMed: [31292544](http://www.uniprot.org/citations/31292544), PubMed: [32451507](http://www.uniprot.org/citations/32451507)). The resulting mRNA-YTHDF complexes then partition into different endogenous phase-separated membraneless compartments, such as P-bodies, stress granules or neuronal RNA granules (PubMed: [31292544](http://www.uniprot.org/citations/31292544)).

Cellular Location

Cytoplasm. Cytoplasm, P-body. Cytoplasm, Stress granule

Volume

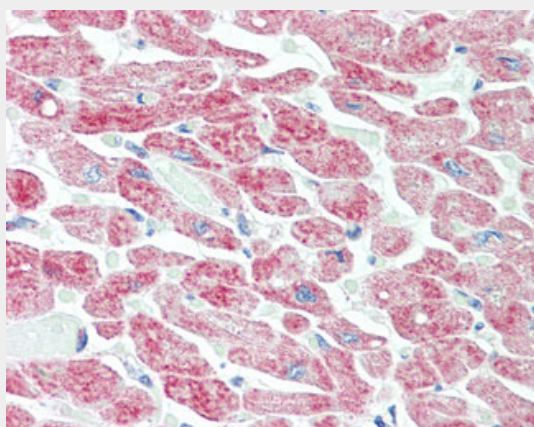
50 µl

YTHDF1 Antibody (aa1-50) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

YTHDF1 Antibody (aa1-50) - Images



Anti-YTHDF1 antibody IHC staining of human heart.

YTHDF1 Antibody (aa1-50) - Background

Specifically recognizes and binds N6-methyladenosine (m6A)-containing RNAs. M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in the efficiency of mRNA splicing, processing and stability.

YTHDF1 Antibody (aa1-50) - References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 414:865-871(2001).
Onouchi H.,et al.Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Daub H.,et al.Mol. Cell 31:438-448(2008).