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YTHDF1 Antibody (aa1-50)
Rabbit Polyclonal Antibody
Catalog # ALS15978

Specification

YTHDF1 Antibody (aa1-50) - Product Information

Application	**IHC**
Primary Accession	Q9BYJ9
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:26318451, PubMed:32492408). 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, PubMed: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:31292544, PubMed:31388144, PubMed: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).

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

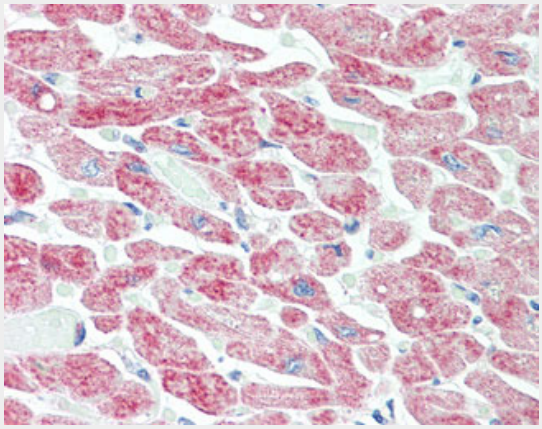
Volume
50 µl

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 Cytomety
- Cell Culture

YTHDF1 Antibody (aa1-50) - Images



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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).