

**KD-Validated Anti-YTHDF1 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI2289****Specification****KD-Validated Anti-YTHDF1 Rabbit Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q9BYJ9</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 61 kDa; observed, 70 kDa KDa
Gene Name	Ythdf1
Aliases	YTHDF1; YTH N6-Methyladenosine RNA Binding Protein F1; C20orf21; Dermatomyositis Associated With Cancer Putative Autoantigen 1; YTH N(6)-Methyladenosine RNA Binding Protein 1; YTH N6-Methyladenosine RNA Binding Protein 1; YTH Domain-Containing Family Protein 1; YTH Domain Family, Member 1; YTH Domain Family 1; FLJ20391; DACA-1; DF1; YTH Domain Family Protein 1
Immunogen	Recombinant protein of mouse YTHDF1

**KD-Validated Anti-YTHDF1 Rabbit Monoclonal Antibody - Additional Information**Gene ID **54915****Other Names**

YTH domain-containing family protein 1, DF1, Dermatomyositis associated with cancer putative autoantigen 1 {ECO:0000303|Ref.4}, DACA-1 {ECO:0000303|Ref.4}, YTHDF1 {ECO:0000303|Ref.4, ECO:0000312|HGNC:HGNC:15867}

**KD-Validated Anti-YTHDF1 Rabbit Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/24284625" target="\_blank">24284625</a>, PubMed:<a href="http://www.uniprot.org/citations/26318451" target="\_blank">26318451</a>, PubMed:<a href="http://www.uniprot.org/citations/32492408" target="\_blank">32492408</a>, PubMed:<a href="http://www.uniprot.org/citations/39900921" target="\_blank">39900921</a>). 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:<a href="http://www.uniprot.org/citations/24284625" target="\_blank">24284625</a>, PubMed:<a href="http://www.uniprot.org/citations/32492408" target="\_blank">32492408</a>). Acts as a regulator of mRNA stability by promoting degradation of m6A-containing mRNAs via interaction

with the CCR4-NOT complex (PubMed:<a href="http://www.uniprot.org/citations/32492408" target="\_blank">32492408</a>). The YTHDF paralogs (YTHDF1, YTHDF2 and YTHDF3) shares m6A-containing mRNAs targets and act redundantly to mediate mRNA degradation and cellular differentiation (PubMed:<a href="http://www.uniprot.org/citations/28106072" target="\_blank">28106072</a>, PubMed:<a href="http://www.uniprot.org/citations/32492408" target="\_blank">32492408</a>). 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:<a href="http://www.uniprot.org/citations/31292544" target="\_blank">31292544</a>, PubMed:<a href="http://www.uniprot.org/citations/31388144" target="\_blank">31388144</a>, PubMed:<a href="http://www.uniprot.org/citations/32451507" target="\_blank">32451507</a>). 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:<a href="http://www.uniprot.org/citations/31292544" target="\_blank">31292544</a>).

#### Cellular Location

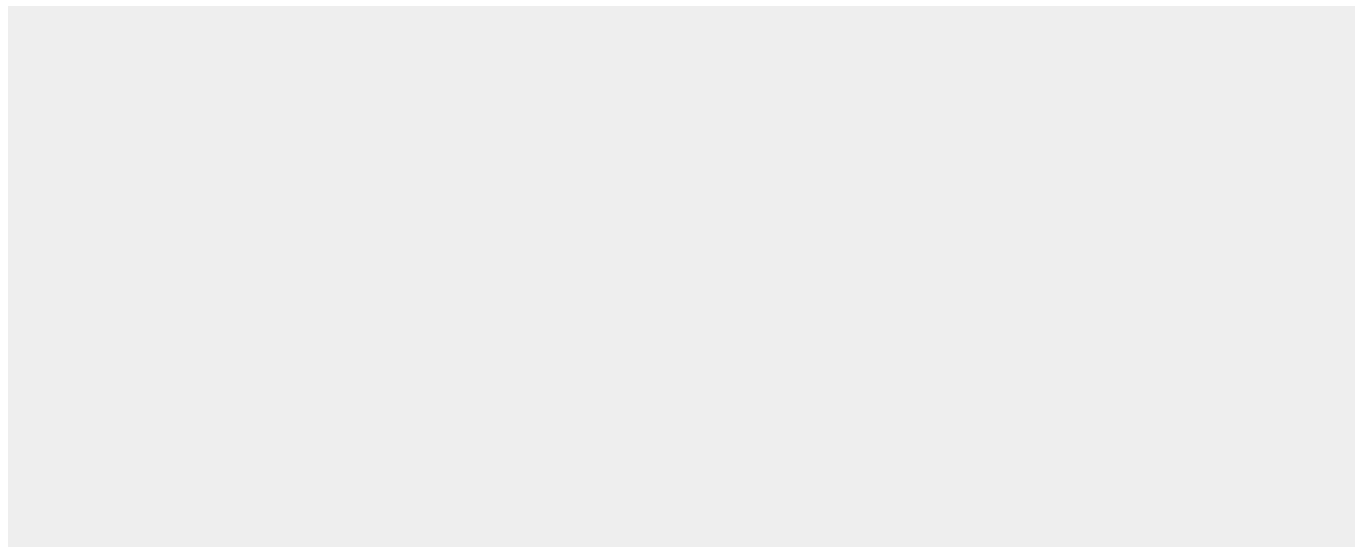
Cytoplasm. Cytoplasm, P-body. Cytoplasm, Stress granule

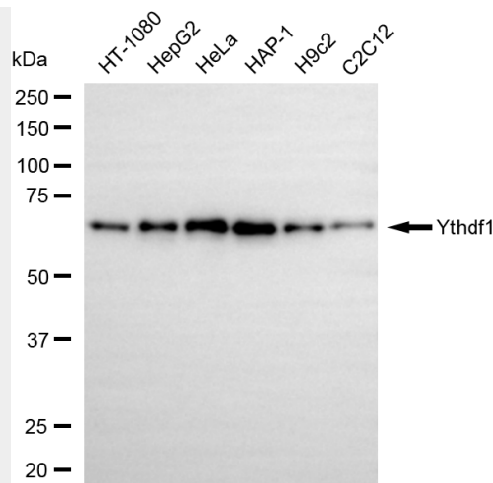
#### KD-Validated Anti-YTHDF1 Rabbit Monoclonal Antibody - Protocols

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

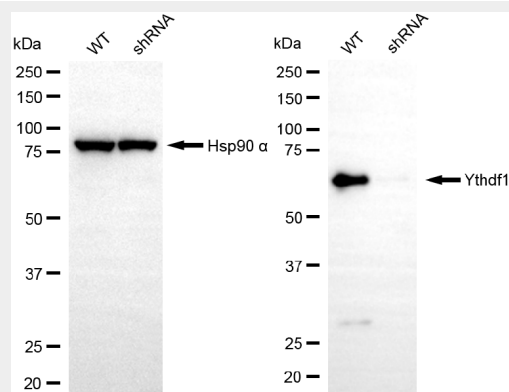
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### KD-Validated Anti-YTHDF1 Rabbit Monoclonal Antibody - Images





Western blotting analysis using anti-Ythdf1 antibody (Cat#AGI2289). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Ythdf1 antibody (Cat#AGI2289, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-ythdf1 antibody (Cat#AGI2289). YTHDF1 expression in wild-type (WT) and YTHDF1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ythdf1 antibody (Cat#AGI2289, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.