

DACA-1 Polyclonal Antibody
Catalog # AP69466**Specification****DACA-1 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	Q9BYJ9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

DACA-1 Polyclonal Antibody - Additional Information**Gene ID** 54915**Other Names**

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

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

DACA-1 Polyclonal 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: [24284625](http://www.uniprot.org/citations/24284625), PubMed: [26318451](http://www.uniprot.org/citations/26318451), PubMed: [32492408](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/24284625), PubMed: [32492408](http://www.uniprot.org/citations/32492408)). Acts as a regulator of mRNA stability by promoting degradation of m6A- containing mRNAs via interaction with the CCR4-NOT complex (PubMed: [32492408](http://www.uniprot.org/citations/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)).

target="_blank">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

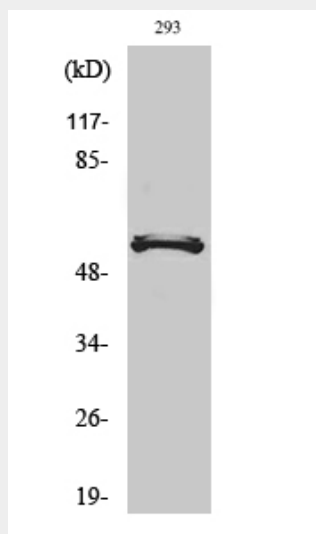
Cytoplasm. Cytoplasm, P-body. Cytoplasm, Stress granule

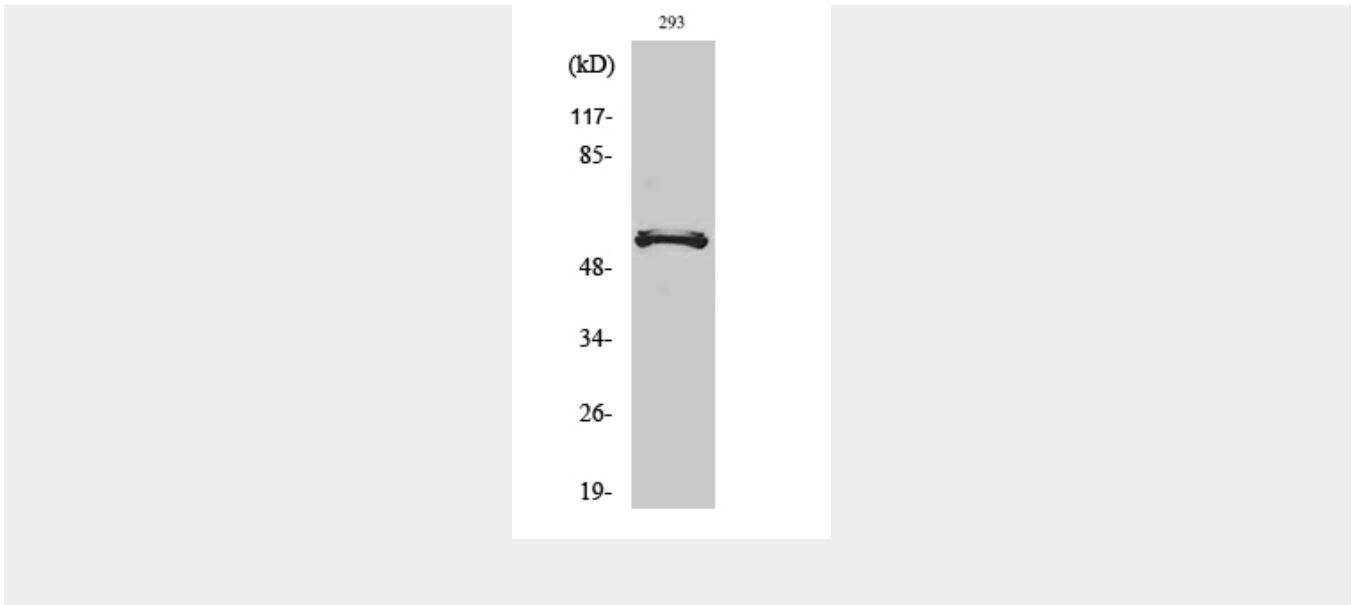
DACA-1 Polyclonal Antibody - Protocols

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](#)

DACA-1 Polyclonal Antibody - Images





DACA-1 Polyclonal Antibody - Background

Specifically recognizes and binds N6-methyladenosine (m6A)-containing mRNAs, and promotes mRNA translation efficiency (PubMed:24284625, PubMed:26046440, PubMed:26318451). 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 (PubMed:24284625). Acts as a regulator of mRNA translation efficiency: promotes ribosome loading to m6A-containing mRNAs and interacts with translation initiation factors eIF3 (EIF3A or EIF3B) to facilitate translation initiation (PubMed:26046440).