



YTHDF1 Rabbit mAb

Catalog No	YP-rAb-18005
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	YTHDF1
Protein Name	YTH domain family protein 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:1000-1:5000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200, Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	C20orf21 ; DACA 1 ; DACA-1 ; Dermatomyositis associated with cancer putative autoantigen 1 ; YTH domain family 1 ; YTH domain family member 1 ; YTH domain family protein 1 ; YTHD1 ; YTHD1_HUMAN ; Ythdf1 ;
Observed Band	70kD
Calculated Molecular Weight	61kD
Cell Pathway	Cytoplasm
Tissue Specificity	In brain, preferentially expressed in the hippocampus . {ECO:0000269 PubMed:30401835}.
Function	Specifically recognizes and binds N6-methyladenosine (m6A)-containing mRNAs, and regulates their stability (PubMed:30401835, PubMed:32943573). 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:30401835, PubMed:32943573). Acts as a regulator of mRNA stability by promoting degradation of m6A-containing mRNAs via interaction with the CCR4-NOT complex (By similarity). The YTHDF paralogs (YTHDF1, YTHDF2 and YTHDF3) share m6A-containing mRNAs targets and act redundantly to mediate mRNA degradation and cellular differentiation (PubMed:32943573). Required to facilitate learning and memory formation in the hippocampus by binding to m6A-containing neuronal mRNAs (PubMed:30401835). Acts as a regulator of axon guidance by





binding to m6A-containing ROBO3 transcripts (PubMed:30843071). Acts as a negative regulator of antigen cross-presentation in myeloid dendritic cells (PubMed:30728504). In the context of tumorigenesis, negative regulation of antigen cross-presentation limits the anti-tumor response by reducing efficiency of tumor-antigen cross-presentation (PubMed:30728504). 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 (By similarity). The resulting mRNA-YTHDF complexes then partition into different endogenous phase-separated membraneless compartments, such as P-bodies, stress granules or neuronal RNA granules (By similarity).

Background

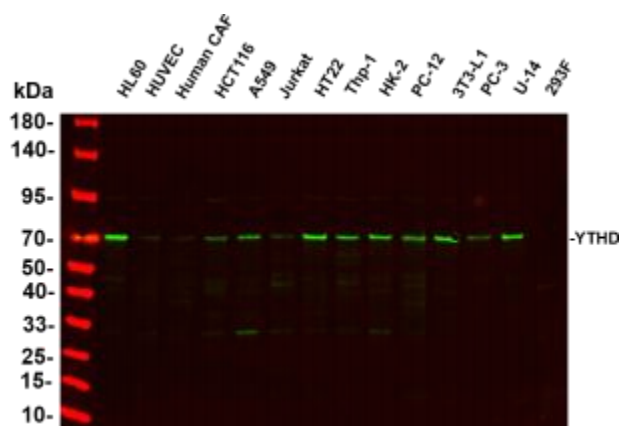
Enables N6-methyladenosine-containing RNA binding activity and ribosome binding activity. Involved in mRNA destabilization; positive regulation of translational initiation; and stress granule assembly. Located in P-body and cytoplasmic stress granule. [provided by Alliance of Genome Resources, Apr 2022]

matters needing attention

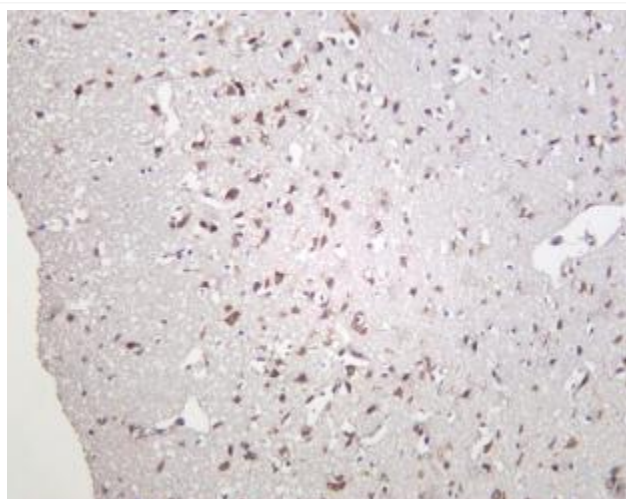
Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

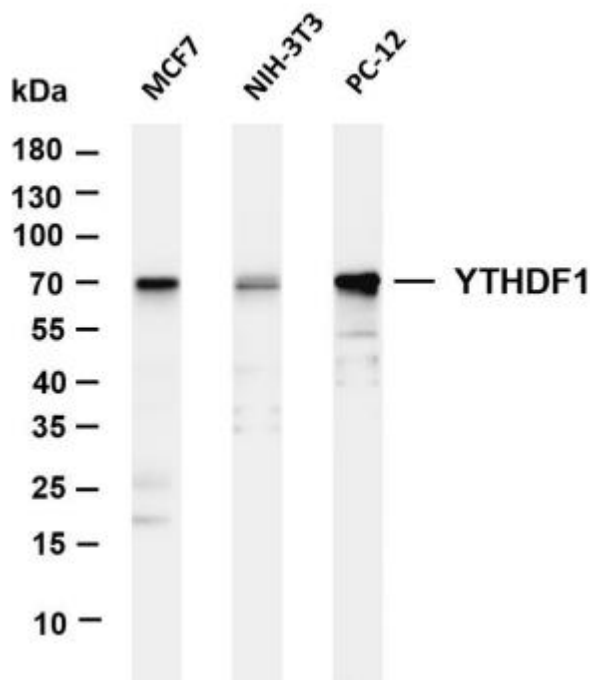


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:2500 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody

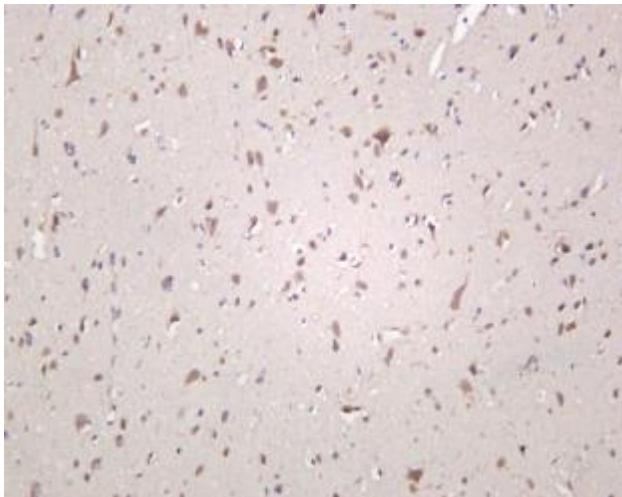


Rat brain was stained with anti-YTHDF1 rabbit antibody

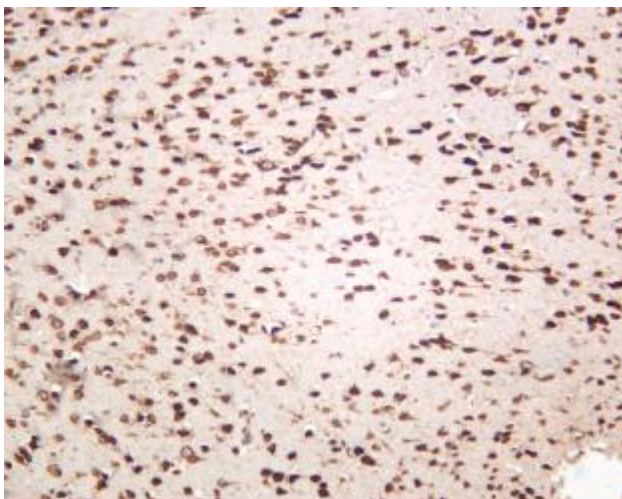




Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-YTHDF1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7 Lane 2: NIH-3T3 Lane 3: PC-12
Predicted band size: 61kDa Observed band size: 70kDa



Human brain was stained with anti-YTHDF1 rabbit antibody



Mouse brain was stained with anti-YTHDF1 rabbit antibody

