



YTHDF1 (ANT0026R) Rabbit mAb

CatalogNo: ANT8192 **Recombinant** 

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA
Quantity : 100 ug/vial

Host Species

- Rabbit
- Human,Mouse,Rat,

Reactivity

- WB,IHC,IF,IP,ELISA

Applications

MW

- 61kD (Calculated)
 - IgG,Kappa
- 70kD (Observed)

Isotype

Recommended Dilution Ratios

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,

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Basic Information

Clonality Monoclonal

Clone Number ANT0026R

Target Information

Endogenous

Gene name Ythdf1

Protein Name YTH domain-containing family protein 1 (Dermatomyositis associated with cancer putative autoantigen 1 homolog) (DACA-1 homolog)

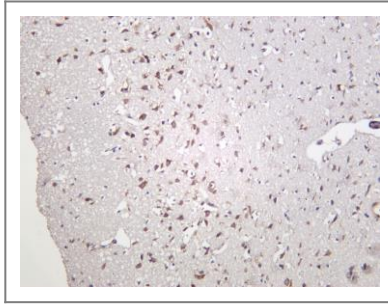
Organism	Gene ID	UniProt ID
Human	54915 ;	Q9BYJ9 ;
Rat		P59326 ;

Cellular Localization 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 crosspresentation 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).

Validation Data

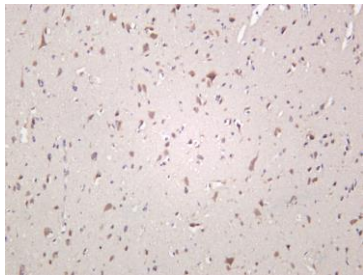
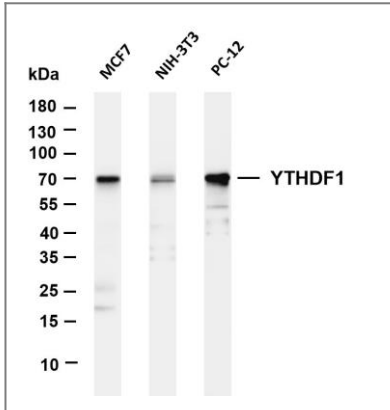


Rat brain was stained with anti-YTHDF1 (ANT0026R)

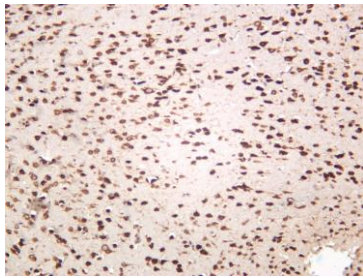
rabbit antibody

Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-YTHDF1 (ANT0026R) antibody. The HRPconjugated 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 (ANT0026R) rabbit antibody



Mouse brain was stained with anti-YTHDF1 (ANT0026R) rabbit antibody

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