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YTHD3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9985A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q7Z739
Other Accession	Q8BYK6
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24699
Calculated MW	63861
Antigen Region	228-257

Additional Information

Gene ID	253943
Other Names	YTH domain-containing family protein 3, YTHDF3
Target/Specificity	This YTHD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 228-257 amino acids from the Central region of human YTHD3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	YTHD3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	YTHDF3 {ECO:0000303|PubMed:28106072, ECO:0000312|HGNC:HGNC:26465}
Function	Specifically recognizes and binds N6-methyladenosine (m6A)- containing RNAs, and regulates their stability (PubMed:28106072, PubMed:28106076,

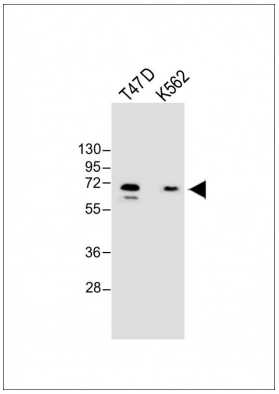
PubMed:28281539, PubMed:32492408). M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in mRNA stability and processing (PubMed:22575960, PubMed:24284625, PubMed:28106072, PubMed:28281539, PubMed:32492408). Acts as a regulator of mRNA stability by promoting degradation of m6A-containing mRNAs via interaction with the CCR4-NOT complex or PAN3 (PubMed:32492408). The YTHDF paralogs (YTHDF1, YTHDF2 and YTHDF3) share m6A-containing mRNAs targets and act redundantly to mediate mRNA degradation and cellular differentiation (PubMed:28106072, PubMed:28106076, PubMed:32492408). Acts as a negative regulator of type I interferon response by down-regulating interferon-stimulated genes (ISGs) expression: acts by binding to FOXO3 mRNAs (By similarity). Binds to FOXO3 mRNAs independently of METTL3-mediated m6A modification (By similarity). Can also act as a regulator of mRNA stability in cooperation with YTHDF2 by binding to m6A-containing mRNA and promoting their degradation (PubMed:28106072). Recognizes and binds m6A- containing circular RNAs (circRNAs); circRNAs are generated through back-splicing of pre-mRNAs, a non-canonical splicing process promoted by dsRNA structures across circularizing exons (PubMed:28281539). 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). May also recognize and bind N1-methyladenosine (m1A)-containing mRNAs: inhibits trophoblast invasion by binding to m1A-methylated transcripts of IGF1R, promoting their degradation (PubMed:32194978).

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

References

Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000)

Images



All lanes : Anti-YTHD3 Antibody (Center) at 1:1000 dilution Lane 1: T47D whole cell lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 64 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

YTHD3 Antibody (Center) (Cat. #AP9985a) IHC analysis in formalin fixed and paraffin embedded skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the



use of the YTHD3 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.