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YTHDC2 Rabbit mAb

Catalog # AP76768

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	B2RR83
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	161092

Additional Information

Gene ID	240255
Other Names	Ythdc2
Dilution	WB~~1:1000 IHC-P~~N/A FC~~1:10~50 IP~~N/A
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	Ythdc2 {ECO:0000303|PubMed:28809393, ECO:0000312|MGI:MGI:2448561}
Function	3'-5' RNA helicase that plays a key role in the male and female germline by promoting transition from mitotic to meiotic divisions in stem cells (PubMed:28380054, PubMed:28809393, PubMed:29033321, PubMed:29087293, PubMed:29360036, PubMed:32470506). Specifically recognizes and binds N6-methyladenosine (m6A)-containing RNAs, a modification present at internal sites of mRNAs and some non- coding RNAs that plays a role in the efficiency of RNA processing and stability (PubMed:29360036). Essential for ensuring a successful progression of the meiotic program in the germline by regulating the level of m6A-containing RNAs (PubMed:29033321). Acts by binding and promoting degradation of m6A-containing mRNAs: the 3'-5' RNA helicase activity is required for this process and RNA degradation may be mediated by XRN1 exoribonuclease (PubMed:29033321). Required for both spermatogenesis and oogenesis (PubMed:28809393, PubMed:29033321).

Cellular Location	Cytoplasm. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q9H6S0}
Tissue Location	Present in male and female germ cells (at protein level) (PubMed:29033321, PubMed:32470506). Highly expressed in testis (PubMed:28809393, PubMed:29033321, PubMed:29087293, PubMed:29360036) Not detected in spermatogonia next to the tubule wall but is strongly expressed in spermatocytes, suggesting that it is up-regulated in germ cells upon entry into meiosis (at protein level) (PubMed:29087293)

Background

3'-5' RNA helicase that plays a key role in the male and female germline by promoting transition from mitotic to meiotic divisions in stem cells.

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