

Product datasheet for **TA378478**

METT10D (METTL16) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, IP, WB
Recommended Dilution:	WB,1:500 - 1:2000 IHC,1:50 - 1:200 IF,1:50 - 1:200 IP,1:50 - 1:200
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 263-562 of human METTL16 (NP_076991.3).
Formulation:	PBS with 0.05% proclin300,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	25kDa/63kDa
Gene Name:	methyltransferase like 16
Database Link:	Entrez Gene 79066 Human Q86W50



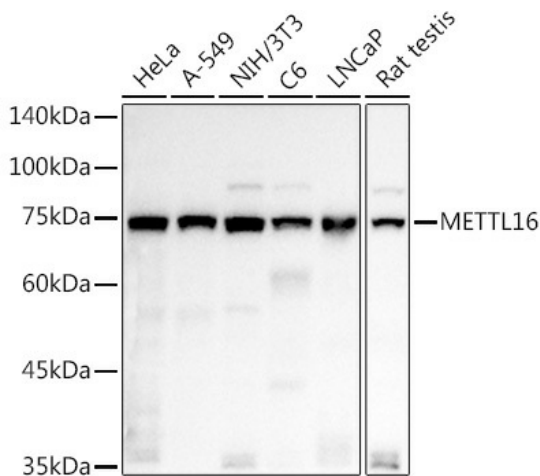
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Background:

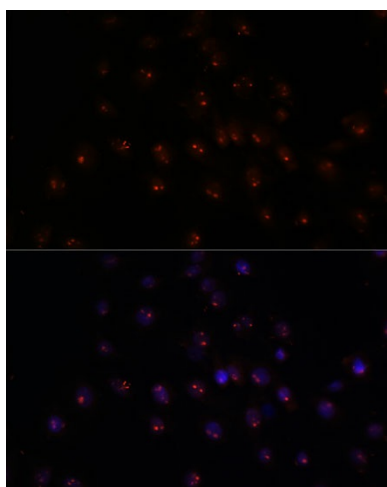
RNA N6-methyltransferase that methylates adenosine residues at the N(6 position of a subset of RNAs and is involved in S-adenosyl-L-methionine homeostasis by regulating expression of MAT2A transcripts. Able to N6-methylate a subset of mRNAs and U6 small nuclear RNAs (U6 snRNAs). In contrast to the METTL3-METTL14 heterodimer, only able to methylate a limited number of RNAs: requires both a 5'UACAGAGAA-3' nonamer sequence and a specific RNA structure. Plays a key role in S-adenosyl-L-methionine homeostasis by mediating N6-methylation of MAT2A mRNAs, altering splicing of MAT2A transcripts: in presence of S-adenosyl-L-methionine, binds the 3'-UTR region of MAT2A mRNA and specifically N6-methylates the first hairpin of MAT2A mRNA, preventing recognition of their 3'-splice site by U2AF1/U2AF35, thereby inhibiting splicing and protein production of S-adenosylmethionine synthase. In S-adenosyl-L-methionine-limiting conditions, binds the 3'-UTR region of MAT2A mRNA but stalls due to the lack of a methyl donor, preventing N6-methylation and promoting expression of MAT2A. In addition to mRNAs, also able to mediate N6-methylation of U6 small nuclear RNA (U6 snRNA: specifically N6-methylates adenine in position 43 of U6 snRNAs). Also able to bind various lncRNAs, such as 7SK snRNA (7SK RNA or 7SL RNA. Specifically binds the 3'-end of the MALAT1 long non-coding RNA.

Synonyms:

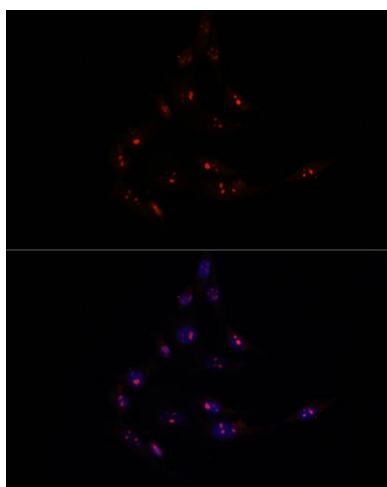
METT10D

Product images:


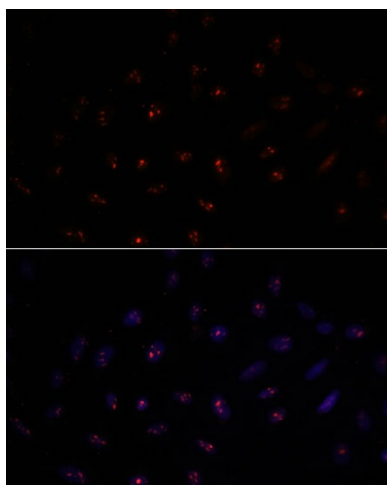
Western blot analysis of extracts of various cell lines, using METTL16 antibody (TA378478) at 1:1000 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 3s.



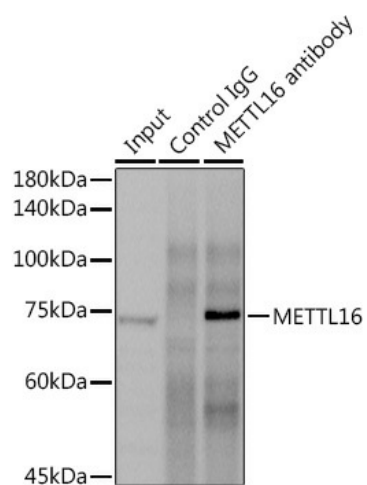
Immunofluorescence analysis of C6 cells using METTL16 antibody (TA378478) at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH/3T3 cells using METTL16 antibody (TA378478) at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U-2 OS cells using METTL16 antibody (TA378478) at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunoprecipitation analysis of 300ug extracts of LNCaP cells using 3ug METTL16 antibody (TA378478). Western blot was performed from the immunoprecipitate using METTL16 (TA378478) at a dilution of 1:1000.