

**METTL4 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP10377B**

**Specification**

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**METTL4 Antibody (C-term) - Product Information**

|                   |                             |
|-------------------|-----------------------------|
| Application       | WB, FC, IHC-P-Leica,E       |
| Primary Accession | <a href="#">Q8N3J2</a>      |
| Other Accession   | <a href="#">NP_073751.3</a> |
| Reactivity        | Human, Rat                  |
| Host              | Rabbit                      |
| Clonality         | Polyclonal                  |
| Isotype           | Rabbit IgG                  |
| Antigen Region    | 315-344                     |

**METTL4 Antibody (C-term) - Additional Information**

**Gene ID** 64863

**Other Names**

Methyltransferase-like protein 4, 211-, METTL4

**Target/Specificity**

This METTL4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 315-344 amino acids from the C-terminal region of human METTL4.

**Dilution**

WB~~1:1000

FC~~1:25

IHC-P-Leica~~1:500

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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**

METTL4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**METTL4 Antibody (C-term) - Protein Information**

**Name** METTL4 {ECO:0000303|PubMed:31913360, ECO:0000312|HGNC:HGNC:24726}

**Function** N(6)-adenine-specific methyltransferase that can methylate both RNAs and DNA (PubMed:[31913360](#), PubMed:[32183942](#)). Acts as a N(6)- adenine-specific RNA methyltransferase by catalyzing formation of N6,2'-O-dimethyladenosine (m6A(m)) on internal positions of U2 small nuclear RNA (snRNA): methylates the 6th position of adenine residues with a pre-deposited 2'-O-methylation (PubMed:[31913360](#)). Internal m6A(m) methylation of snRNAs regulates RNA splicing (PubMed:[31913360](#)). Also able to act as a N(6)-adenine-specific DNA methyltransferase by mediating methylation of DNA on the 6th position of adenine (N(6)- methyladenosine) (PubMed:[32183942](#)). The existence of N(6)- methyladenosine (m6A) on DNA is however unclear in mammals, and additional evidences are required to confirm the role of the N(6)- adenine-specific DNA methyltransferase activity of METTL4 in vivo (PubMed:[32203414](#)). Acts as a regulator of mitochondrial transcript levels and mitochondrial DNA (mtDNA) copy number by mediating mtDNA N(6)-methylation: m6A on mtDNA reduces transcription by repressing TFAM DNA-binding and bending (PubMed:[32183942](#)). N(6)-methyladenosine deposition by METTL4 regulates Polycomb silencing by triggering ubiquitination and degradation of sensor proteins ASXL1 and MPND, leading to inactivation of the PR-DUB complex and subsequent preservation of Polycomb silencing (By similarity).

#### Cellular Location

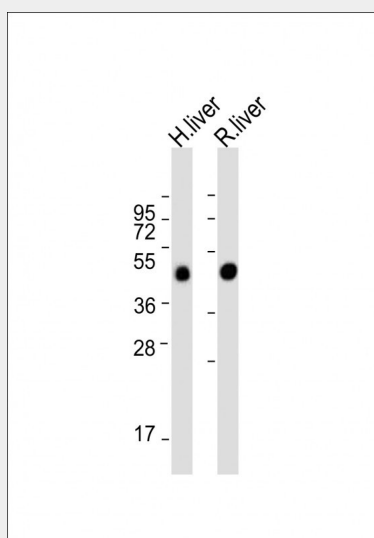
Nucleus. Cytoplasm, cytosol. Mitochondrion matrix

#### METTL4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

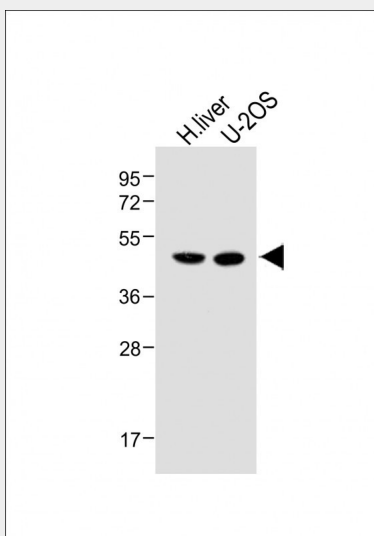
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### METTL4 Antibody (C-term) - Images

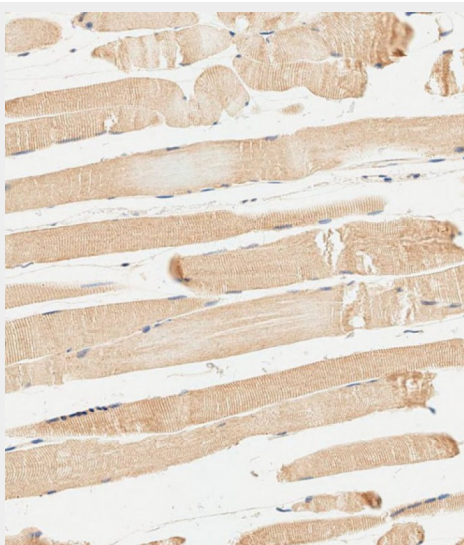


All lanes : Anti-METTL4 Antibody (C-term) at 1:2000 dilution Lane 1: Human liver lysate Lane 2: Rat liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),

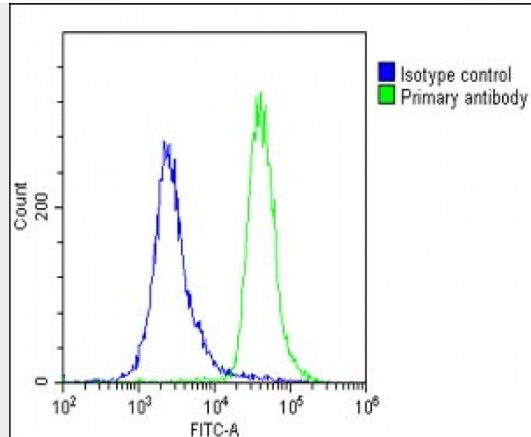
Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-METTL4 Antibody (C-term) at 1:1000 dilution Lane 1: Human liver lysate Lane 2: U-2OS 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 : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue using AP10377b performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing U-2 OS cells stained with AP10377b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP10377b, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.

#### **METTL4 Antibody (C-term) - References**

Trevino, L.R., et al. Nat. Genet. 41(9):1001-1005(2009)

#### **METTL4 Antibody (C-term) - Citations**

- [N-Deoxyadenosine Methylation in Mammalian Mitochondrial DNA](#)