

METTL1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9887c**Specification**

METTL1 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O9UBP6
Other Accession	O9Z120 , O2YDF1
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	31471
Antigen Region	147-175

METTL1 Antibody (Center) - Additional Information**Gene ID** 4234**Other Names**

tRNA (guanine-N(7))-methyltransferase {ECO:0000255|HAMAP-Rule:MF_03055}, 21133
{ECO:0000255|HAMAP-Rule:MF_03055}, Methyltransferase-like protein 1
{ECO:0000255|HAMAP-Rule:MF_03055}, tRNA (guanine(46)-N(7))-methyltransferase
{ECO:0000255|HAMAP-Rule:MF_03055}, tRNA(m7G46)-methyltransferase
{ECO:0000255|HAMAP-Rule:MF_03055}, METTL1 {ECO:0000255|HAMAP-Rule:MF_03055}, C12orf1

Target/Specificity

This METTL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 147-175 amino acids from the Central region of human METTL1.

Dilution

WB~~1:1000

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

METTL1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

METTL1 Antibody (Center) - Protein Information

Name TRMB

Function Catalytic component of METTL1-WDR4 methyltransferase complex that mediates the formation of N(7)-methylguanine in a subset of RNA species, such as tRNAs, mRNAs and microRNAs (miRNAs) (PubMed:[12403464](#), PubMed:[31031083](#), PubMed:[31031084](#), PubMed:[36599982](#), PubMed:[36599985](#), PubMed:[37369656](#), PubMed:[37379838](#)). Catalyzes the formation of N(7)- methylguanine at position 46 (m7G46) in a large subset of tRNAs that contain the 5'-RAGGU-3' motif within the variable loop (PubMed:[12403464](#), PubMed:[34352206](#), PubMed:[34352207](#), PubMed:[36599982](#), PubMed:[36599985](#), PubMed:[37369656](#)). M7G46 interacts with C13-G22 in the D-loop to stabilize tRNA tertiary structure and protect tRNAs from decay (PubMed:[36599982](#), PubMed:[36599985](#)). Also acts as a methyltransferase for a subset of internal N(7)-methylguanine in mRNAs (PubMed:[31031084](#), PubMed:[37379838](#)). Internal N(7)-methylguanine methylation of mRNAs in response to stress promotes their relocalization to stress granules, thereby suppressing their translation (PubMed:[31031084](#), PubMed:[37379838](#)). Also methylates a specific subset of miRNAs, such as let-7 (PubMed:[31031083](#)). N(7)-methylguanine methylation of let-7 miRNA promotes let-7 miRNA processing by disrupting an inhibitory secondary structure within the primary miRNA transcript (pri-miRNA) (PubMed:[31031083](#)). Acts as a regulator of embryonic stem cell self-renewal and differentiation (By similarity).

Cellular Location

Nucleus

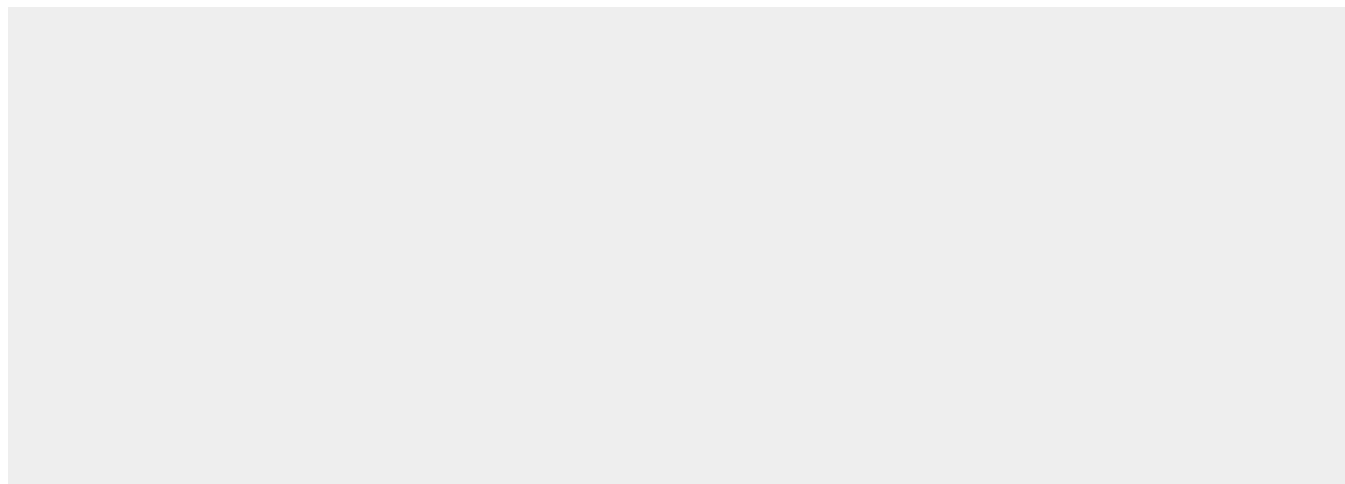
Tissue Location

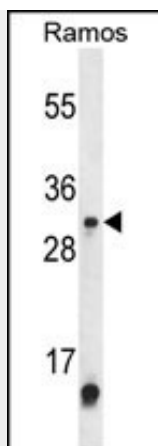
Ubiquitous..

METTL1 Antibody (Center) - 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](#)

METTL1 Antibody (Center) - Images



Western blot analysis of METTL1 Antibody (Center) (Cat. #AP9887c) in Ramos cell line lysates (35ug/lane). METTL1 (arrow) was detected using the purified Pab.

METTL1 Antibody (Center) - Background

This gene is similar in sequence to the *S. cerevisiae* YDL201w gene. The gene product contains a conserved S-adenosylmethionine-binding motif and is inactivated by phosphorylation.

METTL1 Antibody (Center) - References

Guey, L.T., et al. Eur. Urol. 57(2):283-292(2010)
Nat. Genet. 41(7):824-828(2009)
Cartlidge, R.A., et al. EMBO J. 24(9):1696-1705(2005)
Alexandrov, A., et al. RNA 8(10):1253-1266(2002)