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METTL1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP9887c

Specification

METTL1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9UBP6

METTL1 Antibody (Center) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

METTL1 Antibody (Center) Blocking Peptide - 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:37379838, PubMed:37369656). 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:34352207, PubMed:34352206, PubMed:<a

href="http://www.uniprot.org/citations/36599982" target="_blank">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) Blocking Peptide - Protocols

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

- Blocking Peptides

METTL1 Antibody (Center) Blocking Peptide - Images

METTL1 Antibody (Center) Blocking Peptide - 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) Blocking Peptide - 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)