

## Recombinant Mouse Mettl4 Protein, Myc/DDK-tagged

Cat. No. Mettl4-4049M Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Purified recombinant protein of mouse full-length methyltransferase like 4 (Mettl4), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

#### Species

Mouse

#### Source

HEK293

#### Description

N6-adenine-specific methyltransferase that can methylate both RNAs and DNA. Acts as a N6-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. Internal m6A(m) methylation of snRNAs regulates RNA splicing. Also able to act as a N6-adenine-specific DNA methyltransferase by mediating methylation of DNA on the 6th position of adenine (N6-methyladenosine). The existence of N6-methyladenosine (m6A) on DNA is however unclear in mammals, and additional evidences are required to confirm the role of the N6-adenine-specific DNA methyltransferase activity of METTL4 in vivo. Acts as a regulator of mitochondrial transcript levels and mitochondrial DNA (mtDNA) copy number by mediating mtDNA N6-methylation: m6A on mtDNA reduces transcription by repressing TFAM DNA-binding and bending. N6-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.

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<b>Molecular Mass</b>	53.3 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

<b>Gene Name</b>	Mettl4 methyltransferase like 4 [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Mettl4
<b>Synonyms</b>	METTL4; methyltransferase like 4; methyltransferase-like protein 4; HsT661; AV296509; 2410198H06Rik; A730091E08Rik
<b>Gene ID</b>	76781
<b>mRNA Refseq</b>	NM_176917
<b>Protein Refseq</b>	NP_795891
<b>UniProt ID</b>	Q3U034

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