

## Recombinant Mouse Mettl14 Protein, Myc/DDK-tagged

Cat. No. Mettl14-4041M Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Purified recombinant protein of mouse full-length methyltransferase like 14 (Mettl14), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

**Species** Mouse

**Source** HEK293

**Description** The METTL3-METTL14 heterodimer forms a N6-methyltransferase complex that methylates adenosine residues at the N6 position of some mRNAs and regulates the circadian clock, differentiation of embryonic stem cells and cortical neurogenesis. In the heterodimer formed with METTL3, METTL14 constitutes the RNA-binding scaffold that recognizes the substrate rather than the catalytic core. N6-methyladenosine (m6A), which takes place at the 5'-[AG]GAC-3' consensus sites of some mRNAs, plays a role in mRNA stability and processing. M6A acts as a key regulator of mRNA stability by promoting mRNA destabilization and degradation. In embryonic stem cells (ESCs), m6A methylation of mRNAs encoding key naive pluripotency-promoting transcripts results in transcript destabilization. M6A regulates spermatogonial differentiation and meiosis and is essential for male fertility and spermatogenesis. M6A also regulates cortical neurogenesis: m6A methylation of transcripts related to transcription factors, neural stem cells, the cell cycle and neuronal differentiation during brain development promotes their destabilization and decay, promoting differentiation of radial glial cells.

**Molecular Mass** 52.6 kDa

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<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>	<a href="#">Mettl14 methyltransferase like 14 [ Mus musculus (house mouse) ]</a>
<b>Official Symbol</b>	<a href="#">Mettl14</a>
<b>Synonyms</b>	Mettl14; methyltransferase like 14; mKIAA1627; G430022H21Rik; N6-adenosine-methyltransferase non-catalytic subunit; N6-adenosine-methyltransferase subunit METTL14; methyltransferase-like protein 14; snoRNA MBII-84; EC 2.1.1.62
<b>Gene ID</b>	<a href="#">210529</a>
<b>mRNA Refseq</b>	<a href="#">NM_201638</a>
<b>Protein Refseq</b>	<a href="#">NP_964000</a>
<b>UniProt ID</b>	<a href="#">Q3UIK4</a>

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