

Recombinant Mouse Mettl16 Protein, Myc/DDK-tagged

Cat. No. Mettl16-4042M Lot. No. (See product label)

SPECIFICATION

Product Overview

Purified recombinant protein of mouse full-length methyltransferase like 16 (Mettl16), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species

Mouse

Source

HEK293

Description

RNA N6-methyltransferase that methylates adenosine residues at the N6 position of a subset of RNAs and is involved in S-adenosyl-L-methionine homeostasis by regulating expression of MAT2A transcripts. Able to N6-methylate a subset of mRNAs and U6 small nuclear RNAs (U6 snRNAs). In contrast to the METTL3-METTL14 heterodimer, only able to methylate a limited number of RNAs: requires both a 5'UACAGAGAA-3' nonamer sequence and a specific RNA structure. Plays a key role in S-adenosyl-L-methionine homeostasis by mediating N6-methylation of MAT2A mRNAs, altering splicing and/or stability of MAT2A transcripts: in presence of S-adenosyl-L-methionine, binds the 3'-UTR region of MAT2A mRNA and specifically N6-methylates the first hairpin of MAT2A mRNA, impairing MAT2A expression. In S-adenosyl-L-methionine-limiting conditions, binds the 3'-UTR region of MAT2A mRNA but stalls due to the lack of a methyl donor, preventing N6-methylation and promoting expression of MAT2A. In addition to mRNAs, also able to mediate N6-methylation of U6 small nuclear RNA (U6 snRNA): specifically N6-methylates adenine in position 43 of U6 snRNAs. Also able to bind various lncRNAs, such as 7SK snRNA (7SK RNA) or 7SL RNA. Specifically binds the 3'-end of the MALAT1 long non-coding RNA.

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Molecular Mass	62.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Mettl16 methyltransferase like 16 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Mettl16
Synonyms	METTL16; methyltransferase like 16; methyltransferase-like protein 16; putative methyltransferase METT10D; methyltransferase 10 domain containing; methyltransferase 10 domain-containing protein; Mett10d; AI846133; 2610100D03Rik; 2810013M15Rik; A830095F14Rik; RP23-174M12.2
Gene ID	67493
mRNA Refseq	NM_026197
Protein Refseq	NP_080473
UniProt ID	Q9CQG2

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