

Recombinant Human METTL16 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. METTL16-2609H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

METT10D MS Standard C13 and N15-labeled recombinant protein (NP_076991) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species

Human

Source

HEK293

Description

RNA N6-methyltransferase that methylates adenosine residues of a subset of RNAs and plays a key role 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. 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, leading to intron retention and preventing MAT2A mRNA splicing. 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, leading to stimulate splicing of the MAT2A retained intron, 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. Specifically binds the 3'-end of the MALAT1 long non-coding RNA.

Molecular Mass

63.6 kDa

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AA Sequence

MALSKSMHARNRYKDKPPDFAYLASKYPDFKQHVQINLNGRVSLNFKDPEAVRALT
 CTLLREDFGLSIDIPLERLIPTVPLRLNYIHWVEDLIGHQDSDKSTLRRGIDIGTGASCI
 YPLLGATLNGWYFLATEVDDMCFNYAKKNVEQNNLSDLIKVVKVPQKTLMDALKEE
 SEIYDFCMCNPPFFANQLEAKGVNSRNP RRPPSSVNTGGITEIMAEEGGELEFVKRI
 IHDSLQLKKRLRWYSCMLGKKCSLAPLKEELRIQGVPKVTYTEFCQGRTRWALAW
 SFYDDVTVSPPSKRRKLEKPRKPITFVVLASVMKELSLKASPLRSETAEGIVVTTW
 IEKILTDLVQHKRVPCGKEEVSLFLTAIENSWIHLRRKKRERVRQLREVPRAPEDVI
 QALEEKKPTPKESGNSQELARGPQERTPCGPALREGEAAAVEGPCPSQESLSQEE
 NPEPTEDERSEEKGGVEVLENCQGSSNGAQDQEASEQFGSPVAERGKRLPGVAG
 QYLFKCLINVKKEVDDALVEMHWVEGQNRDLMNQLCTYIRNQIFRLVAVNTRTRPLE
 QKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name [METTL16 methyltransferase like 16 \[Homo sapiens \(human\) \]](#)

Official Symbol [METTL16](#)

Synonyms METTL16; methyltransferase like 16; methyltransferase 10 domain containing, METT10D; methyltransferase-like protein 16; MGC3329; putative methyltransferase

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METT10D; methyltransferase 10 domain containing; methyltransferase 10 domain-containing protein; METT10D;

Gene ID 79066

mRNA Refseq NM_024086

Protein Refseq NP_076991

UniProt ID Q86W50

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