

Recombinant Human METTL16 Protein, His-tagged

Cat. No. METTL16-032H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human recombinant C-terminal histidine-tagged human METTL16 protein (2-562) was purified from E. coli.
Species	Human
Source	E.coli
ProteinLength	2-562
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 (PubMed:28525753, PubMed:30197299, PubMed:30197297). Able to N6-methylate a subset of mRNAs and U6 small nuclear RNAs (U6 snRNAs) (PubMed:28525753). 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 (PubMed:28525753, PubMed:30197299, PubMed:30197297). 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 (PubMed:28525753). 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 (PubMed:28525753). In addition to mRNAs, also able to mediate N6-methylation of U6 small nuclear

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

RNA (U6 snRNA): specifically N6-methylates adenine in position 43 of U6 snRNAs (PubMed:28525753, PubMed:29051200, PubMed:32266935). Also able to bind various lncRNAs, such as 7SK snRNA (7SK RNA) or 7SL RNA (PubMed:29051200). Specifically binds the 3'-end of the MALAT1 long non-coding RNA (PubMed:27872311).

Molecular Mass 64.5 kDa

Purity ≥90% as determined by SDS-PAGE

Stability ≥ 6 months

Storage At -80 centigrade.

Storage Buffer 50 mM HEPES, pH 8.0, with 150 mM sodium chloride, 10% glycerol

GENE INFORMATION

Gene Name METTL16 methyltransferase 16, N6-methyladenosine [Homo sapiens (human)]

Official Symbol METTL16

Synonyms METTL16; methyltransferase 16, N6-methyladenosine; RNA N6-adenosine-methyltransferase METTL16; N6-adenosine-methyltransferase METTL16; U6 small nuclear RNA (adenine-(43)-N(6))-methyltransferase; U6 snRNA methyltransferase; methyltransferase 10 domain containing; methyltransferase 10 domain-containing protein; methyltransferase like 16; methyltransferase-like protein 16; putative methyltransferase METT10D; EC 2.1.1.346; EC 2.1.1.348

Gene ID 79066

mRNA Refseq NM_024086

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Protein Refseq	NP_076991
----------------	-----------

UniProt ID	Q86W50
------------	--------

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA