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Product datasheet for PH300925

METTL14 (NM_020961) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	METTL14 MS Standard C13 and N15-labeled recombinant protein (NP_066012)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200925
Predicted MW:	52.2 kDa
Protein Sequence:	>RC200925 protein sequence Red=Cloning site Green=Tags(s) MDSRLQEIRERQKLRRQLLAQQLGAESADSIGAVLNSKDEQREIAETRETCRASYDTSAPNAKRKYLDEG ETDEDKMEEYKDELEMQQDEENLPYEEEIYKDSSTFLKGTQSLNPHNDYCQHFVDTGHRPQNFIRDVGLA DRFEEYPKLRELIRLKDELIAKSNTPPMYLQADIEAFDIRELTPKFDVILLEPPLEEYYRETGITANEKC WTWDDIMKLEIDEIAAPRSFIFLWCGSGEGLDLGRVCLRKWGYRRCEDICWIKTNKNNPGKTKTLDPKAV FQRTKEHCLMGIKGTVKRSTDGDFIHANVDIDLIITEEPEIGNIEKPVEIFHIIEHFCLGRRRLHLFGRD STIRPGWLTVGPTLTNSNYNAETYASYFSAPNSYLTGCTEEIERLRPKSPPPKSKSDRGGGAPRGGGRGG TSAGRGRERNRSNFRGERGGFRGGRGGAHRGGFPPR TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_066012
RefSeq Size:	2138
RefSeq ORF:	1368
Synonyms:	hMETTL14

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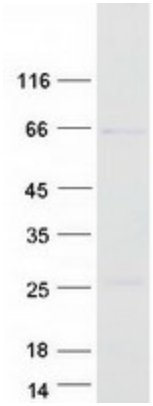
Locus ID: 57721

UniProt ID: Q9HCE5

Cytogenetics: 4q26

Summary: The METTL3-METTL14 heterodimer forms a N6-methyltransferase complex that methylates adenosine residues at the N(6) position of some mRNAs and regulates the circadian clock, differentiation of embryonic stem cells and cortical neurogenesis (PubMed:24316715, PubMed:24407421, PubMed:25719671, PubMed:29348140, PubMed:27373337, PubMed:27281194). In the heterodimer formed with METTL3, METTL14 constitutes the RNA-binding scaffold that recognizes the substrate rather than the catalytic core (PubMed:27627798, PubMed:27373337, PubMed:27281194, PubMed:29348140). 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 (PubMed:24316715, PubMed:24407421, PubMed:25719671). M6A acts as a key regulator of mRNA stability by promoting mRNA destabilization and degradation (By similarity). In embryonic stem cells (ESCs), m6A methylation of mRNAs encoding key naive pluripotency-promoting transcripts results in transcript destabilization (By similarity). M6A regulates spermatogonial differentiation and meiosis and is essential for male fertility and spermatogenesis (By similarity). 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 (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Coomassie blue staining of purified METTL14 protein (Cat# [TP300925]). The protein was produced from HEK293T cells transfected with METTL14 cDNA clone (Cat# [RC200925]) using MegaTran 2.0 (Cat# [TT210002]).