

Product datasheet for **TP300925L**

METTL14 (NM_020961) Human Recombinant Protein

Product data:

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|---------------------------------------|---|
| Product Type: | Recombinant Proteins |
| Description: | Recombinant protein of human methyltransferase like 14 (METTL14), 1 mg |
| Species: | Human |
| Expression Host: | HEK293T |
| Expression cDNA Clone or AA Sequence: | >RC200925 protein sequence Red =Cloning site Green =Tags(s) |
| | MDSRLQEIRERQKLRRQLLAQQLGAESADSIGAVLNSKDEQREIAETRETCRASDYDTSAPNAKRKYLDEG ETDEDKMEEYKDELEMQQDEENLPYEEIYKDSSTFLKGTQSLNPHNDYQCQHFVDTGHRPQNFIRDVGLA DRFEEYPKLRELIRLKDELIAKSNTPPMYLQADIEAFDIRELTPKFDVILLEPPLEYYRETGITANEKC WTWDDIMKLEIDEIAAPRSFIFLWCGSGEGLDLGRVCLRWGYRRCEDICWIKTNKNNPGKTKTLDPKAV FQRTKEHCLMGIKGTVKRSTDGDFIHANVDIDLIIITEEPEIGNIEKPVEIFHIIHFCLGRRRLHLFGRD STIRPGWLTVGPTLTNSNYNAETYASYFSAPNSYLTGCTEEIERLRPKSPPPKSKSDRGGGAPRGGGRGG TSAGRGRERNRSNFRGERGGFRGGGRGGGAHRGGFPPR |
| | TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| Tag: | C-Myc/DDK |
| Predicted MW: | 52 kDa |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method |
| Purity: | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| Buffer: | 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol |
| Preparation: | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps. |
| Note: | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process. |
| Storage: | Store at -80°C. |
| Stability: | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| RefSeq: | <u>NP_066012</u> |

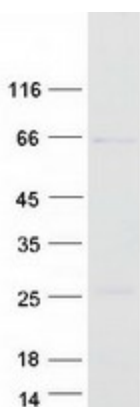


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| | |
|---------------|------------------------|
| Locus ID: | 57721 |
| UniProt ID: | Q9HCE5 |
| RefSeq Size: | 2138 |
| Cytogenetics: | 4q26 |
| RefSeq ORF: | 1368 |
| Synonyms: | hMETTL14 |

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]).