

Product datasheet for **SC319510**

METTL14 (NM_020961) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	METTL14 (NM_020961) Human Untagged Clone
Tag:	Tag Free
Symbol:	METTL14
Synonyms:	hMETTL14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_020961.2
 ATACTCTGTTTCGTAAGCTCCCGGTGAATTTTGTCCACAGACTCGGAAGAAAGGTTGGAT
 AAGAGTTCACTGGAGATTGACAAGTACTCGGGATAGTGAAAAGCCGGAGTTGGAACATGG
 ATAGCCGCTTGCAGGAGATCCGGGAGCGGCAGAAGTTACGGCGACAGCTCCTCGCGCAGC
 AGTTGGGAGCTGAAAAGTCCGACAGCATTGGTGCCGTGTTAAATAGCAAAGATGAGCAGA
 GAGAAATTGCTGAAAACAAGAGAACTTGCAGGGCTTCTATGATACCTCTGCTCCAAATG
 CAAAACGTAAGTATCTGGATGAAGGAGAGACAGATGAAGACAAAATGGAAGAATATAAGG
 ATGAACTAGAAATGCAACAGGATGAAGAAAATTTGCCATATGAAGAAGAGATTTACAAAG
 ATTCTAGTACTTTTCTAAGGGAACACAGAGCTTAAATCCCATAATGATTACTGCCAAC
 ATTTTGTAGACACTGGACATAGACCTCAGAATTCATCAGGGATGTAGGTTTAGCTGACA
 GATTTGAAGAATATCCTAAACTGAGGGAGCTCATCAGGCTAAAGGATGAGTTAATAGCTA
 AATCTAACACTCCTCCATGTACTTACAAGCCGATATAGAAGCCTTTGACATCAGAGAAC
 TAACACCCAAATTTGATGTGATTCTTCTGGAACCCCTTTAGAAGAATATTACAGAGAAA
 CTGGCCTACTGCTAATGAAAAATGCTGGACTTGGGATGATATTGAAGTTAGAAATTG
 ATGAGATTGCAGCACCTCGATCATTTATTTTTCTGGTGTGGTTCTGGGGAGGGTTGG
 ACCTTGGAAAGAGTGTGTTTACGAAAATGGGGTTACAGAAGATGTGAAGATATTTGTTGGA
 TTAACAACAATAAAAACAATCCTGGGAAGACTAAGACTTTAGATCCAAAGGCTGTCTTTC
 AGAGAACAAGGAACACTGCCTCATGGGGATCAAAGGAAGTGAAGCGTAGCACAGACG
 GGGACTTCATTCATGCTAATGTTGACATTGACTTAATTATCACAGAAGAACCTGAAATTG
 GCAATATAGAAAAACCTGTAGAAATTTTTCATATAATTGAGCATTTTTGTCTTGGTAGAA
 GACGCCTTCATCTATTTGGAAGAGATAGTACAATTCGACCAGGCTGGCTCACAGTTGGAC
 CAACGCTTACAAATAGCAACTACAATGCAGAAACATATGCATCCTATTTTCAGTGCCTTA
 ATTCCTACTTGACTGGTTGTACAGAAGAAATGAGAGACTTCGACCAAAAATCGCCTCCTC
 CCAAATCTAAATCTGACCGAGGAGGTGGAGCTCCAGAGGTGGAGGAAGAGGTGGAACCTT
 CTGCTGGCCGTGGACGAGAAAGAAATAGATCTAACTTCCGAGGAGAAAGAGGTGGCTTTA
 GAGGGGGCCGTGGAGGAGCACACAGAGGTGGCTTCCACCTCGATAATTGTTGAAGACAT
 TGAACCTATTCATCCTCCTAACCTTCTTTATTGTAATTAATTTCAAGTGGGAGACTT
 AACTTTAGAACTCACTTCCAGCTTGCACTTTGCTTTAATTTCTCTGAGCTGCAAGAATGT
 CTTAGCGAGCCTTGCTTGCAGTTGTCACACACTGTCCGGTTTTTTTTCAGGATAAATGA
 ATGATTCTGCCTTTTGTATGTGCGTGAACAGAATGGAACAACCTCAAGTAGCTTCATCTT
 CAGAGACTGAATTTATTCTGATAGACTTCAGCTAATTACAAAGGATTTTGCTAATTTTTG
 GGAATAAATAATGAAAAAGATCCAGTCTGTGGTATCATGCTAGTCTGACAGGGCCTTG
 ATAGAATAGAGTTGGAAGATGGTAAGCTTTTGTGCAAGGTTTTAACATTTTCTTGATGA
 AACAATAAAAAGAGGTAAGCTTTTTTCTTTTTTTTTAAGTTTTAAATAAACTCAGAT
 ATAATTTGAATACTGAAGAAATTAAGAGACTTTGAACAAAATCTCTTCCCAAATCTAAAT
 TTGATAGGGGAGGTGGAGATTCCAGGGTGGGTGAAAGAAGAGATAGAACTTAGCAGGCA
 GACTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_020961

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_020961.2</u> , <u>NP_066012.1</u>
RefSeq Size:	2138 bp
RefSeq ORF:	1371 bp
Locus ID:	57721
UniProt ID:	<u>Q9HCE5</u>
Cytogenetics:	4q26
Domains:	MT-A70
Gene Summary:	<p>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]</p>