

Product datasheet for **MG207291**

Mettl14 (NM_201638) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mettl14 (NM_201638) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mettl14
Synonyms:	G430022H21Rik; mKIAA1627
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG207291 representing NM_201638
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGATAGCCGCTGCAGGAGATCCGGGAGCGGCAGAAGTTACGGCGGCAGCTCCTAGCTCAGCAGTTGG
 GAGCTGAGAGTGCAGGATAGCATTGGTGCTGTGTTAAATAGCAAAGATGAACAGAGGGAGATTGCTGAAAC
 CAGAGAAACCTGCAGGGCTTCTATGATACATCTGCTCCAAACTCAAACGGAAGTGTCTGGATGAAGGA
 GAGACTGATGAAGACAAAGTAGAAGAATAAAGGATGAACTGGAATGCAGCAGGAGGAAGAGAATTTGC
 CATATGAAGAAGAGATTTACAAAGATCCAGTACCTTTCTTAAGGGAACGCAGAGCTTAAATCCCCATAA
 TGATTACTGCCAACATTTGTAGACACTGGACACAGACCTCAGAATTTTCATCAGGGATGTAGTTTAGCT
 GACAGATTTGAAGAATACCCTAACTTAGGGAACCTCATCAGACTAAAGGATGAGTTAATAGCTAAGTCAA
 AACTCCTCCCATGTACTTACAAGCAGACATAGAAGCCTTTGACATCAGAGAATTGACACCCAAATTTGA
 TGTGATTCTCCTGGAGCCCCCTCTGGAAGAATACTATAGAGAGACTGGCATCACTGCGAATGAGAAATGC
 TGGACCTGGGATGATATTATGAAGTTAGAAATCGATGAGATTGCAGCACCTCGGTCAATTTATTTCTCT
 GGTGCGGTTCTGGGAAGGATTGGACCTTGGGAGAGTATGCTTGCAAAAGTGGGGTTACAGAAGATGTGA
 AGATATTTGTTGGATTAAAACCAATAAAAAAATCCTGGAAAGACAAAGACTCTAGATCCAAAGGCAGTT
 TTCCAGAGAACAAGGAGCATTGCCTGATGGGGATCAAAGGAACCGTGAAGCGAAGCACAGACGGGGACT
 TCATTCATGCTAATGTTGACATTGACTTAATTATCACAGAAGAACCTGAGATTGGCAATATAGAAAAACC
 AGTAGAAATTTTTCATATAATAGAACATTTTGTCTTGGTAGAAGACGCCTTCATCTCTTTGGGAGAGAT
 AGCACTATCAGGCCAGGCTGGCTCACAGTTGGACCAACGCTTACAACAGTAACTACAATGCAGAAAAAT
 ATGCATCGTATTTCAAGTCCCCCAACTCATACTTGACCGGATGTACAGAGGAAATCGAGAGGCTTCGACC
 GAAGTCACCTCCTCCAAGTCCAAGTCTGACCGTGGGGGTGGAGCTCCAGAGGTGGAGGAAGGGGGGA
 ACATCTGCTGGCGTGGTTCGGGAAAGAAACCGATCCAATTTCCGAGGAGAGAGAGGTGGCTTTAGGGGGG
 GCCGTGGAGGCACGCACAGAGGGCGCTTTACTCTCGG

ACCGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG207291 representing NM_201638
 Red=Cloning site Green=Tags(s)

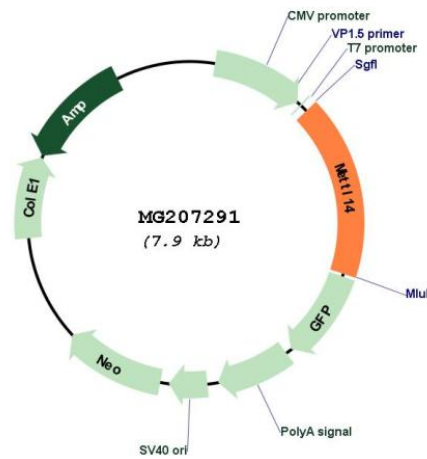
MDSRLQEIRERQKLRRQLLAQQLGAESADSIGAVLNSKDEQREIAETRETCRASYDTSAPNSKRKCLDEG
 ETDEDKVEEYKDELEMQEEENLPYEEEIYKDSSTFLKGTQSLNPHNDYCQHFVDTGHRPQNFIRDVGLA
 DRFEEYPKLRELIRLKDDELIAKSNTPPMYLQADIEAFDIRELTPKFDVILLEPPLEEEYRETGITANEKC
 WTWDDIMKLEIDEIAAPRSFIFLWCGSGEGLDLGRVCLRWGYRRCEDICWIKTNKNNPGKTKTLDPKAV
 FQRTKEHCLMGIKGTVKRSTGDGFIHANVDIDLITTEPEIIGNIEKPVEIFHIEHFCLGRRRLHLFGRD
 STIRPGWLTVGPTLTNSNYNAETYASYFSAPNSYLTGCTEEIERLRPKSPPPKSKSDRGGGAPRGGGRGG
 TSAGRGRERNRSNFRGERGGFRGGRGGTHRGGFTR

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_201638

ORF Size: 1368 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	NM_201638.2 , NP_964000.2
RefSeq Size:	2625 bp
RefSeq ORF:	1371 bp
Locus ID:	210529
UniProt ID:	Q3UIK4
Cytogenetics:	3 G1
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:24394384, PubMed:28965759). In the heterodimer formed with METTL3, METTL14 constitutes the RNA-binding scaffold that recognizes the substrate rather than the catalytic core (By similarity). 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 (By similarity). M6A acts as a key regulator of mRNA stability by promoting mRNA destabilization and degradation (PubMed:24394384). In embryonic stem cells (ESCs), m6A methylation of mRNAs encoding key naive pluripotency-promoting transcripts results in transcript destabilization (PubMed:24394384). M6A regulates spermatogonial differentiation and meiosis and is essential for male fertility and spermatogenesis (PubMed:28914256). 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 (PubMed:28965759).[UniProtKB/Swiss-Prot Function]</p>