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Product datasheet for MC202029

Mettl14 (NM_201638) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mettl14 (NM_201638) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Mettl14
Synonyms:	G430022H21Rik; mKIAA1627
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

Fully Sequenced ORF:

>BC052204 sequence for NM_201638
GTGAAAGTCTCCGGGTCAGAATCTCTGCGGGGCGGGACCCGGTGTTTCCTGGTTTGGCAGGTGGATTTGC
ATTTTGGCGGGCGCGGAGTCCGTCGGGGTGGTGAGCAGCCGAAGCTGGGGCATGGATAGCCGCCTGCAGG
AGATCCGGGAGCGGCAGAAGTTACGGCGGCAGCTCCTAGCTCAGCAGTTGGGAGCTGAGAGTGCGGATAG
CATTGGTGCTGTGTTAAATAGCAAAGATGAACAGAGGGAGATTGCTGAAACCAGAGAAACCTGCAGGGCT
TCCTATGATACATCTGCTCCAAACTCAAAACGGAAGTGTCTGGATGAAGGAGAGACTGATGAAGACAAAG
TAGAAGAATATAAGGATGAACTGGAAATGCAGCAGGAGGAAGAGAATTTGCCATATGAAGAAGAGATTTA
CAAAGATTCCAGTACCTTTCTTAAGGGAACGCAGAGCTTAAATCCCCATAATGATTACTGCCAACATTTT
GTAGACACTGGACACAGACCTCAGAATTTCATCAGGGATGTAGGTTTAGCTGACAGATTTGAAGAATACC
CTAAACTTAGGGAACTCATCAGACTAAAGGATGAGCTAATAGCTAAGTCAAACACTCCTCCCATGTACTT
ACAAGCAGACATAGAAGCCTTTGACATCAGAGAATTGACACCCAAATTTGATGTGATTCTCCTGGAGCCC
CCTCTGGAAGAATACTATAGAGAGACTGGCATCACTGCGAATGAGAAATGCTGGACCTGGGATGATATTA
TGAAGTTAGAAATCGATGAGATTGCAGCACCTCGGTCATTTATATTTCTCTGGTGCGGTTCTGGGGAAGG
ATTGGACCTTGGGAGAGTATGCTTGCGAAAGTGGGGTTACAGAAGATGTGAAGATATTTGTTGGATTAAA
ACCAATAAAAACAATCCTGGAAAGACAAAGACTCTAGATCCAAAGGCAGTTTTCCAGAGAACAAAGGAGC
ATTGCCTGATGGGGATCAAAGGAACCGTGAAGCGAAGCACAGACGGGGACTTCATTCATGCTAATGTTGA
CATTGACTTAATTATCACAGAAGAACCTGAGATTGGCAATATAGAAAAACCAGTAGAAATTTTTCATATA
ATAGAACATTTTTGTCTTGGTAGAAGACGCCTTCATCTCTTTGAGAGAGATAGCACTATCAGGCCAGGCT
GGCTCACAGTTGGACCAACGCTTACAAACAGTAACTACAATGCAGAAACATATGCATCGTATTTCAGTGC
CCCCAACTCATACTTGACCGGATGTACAGAGGAAATCGAGAGGCTTCGACCGAAGTCACCTCCTCCCAAG
TCCAAGTCTGACCGTGGGGGTGGAGCTCCCAGAGGTGGAGGAAGGGGGGGAACATCTGCTGGCCGTGGTC
GGGAAAGAAACCGATCCAATTTCCGAGGAGAGAGAGGTGGCTTTAGGGGGGGCCGTGGAGGCACGCACAG
AGGCGGCTTTACTCCTCGGTAGCTCTTACACTTGCATCTTTATCACAGTGGAGACTTGCTTCAGAGCTCA
CTCCCAGCTTGTACTTTGCTTTAGTTTCTCATGCTGCCAGAAAGATCTTAGCCACCCCACCCCACCCCAG
GGACTGGCAGTTGTCACAGACTGAGCTTTTGCTCAGGGTGGGTGAGTCACGTGTGCGCAACACCCCGACC
TGACTTGACTGATTCCAGTCAAGGCTTTGGCTTCCTGGAAATGGCTGCGCAGAGGCTTCGGCATCTCAGA
GGAGTGGCAGGAGTGGGTGCTGTGTTCCCTGTCATGGCTGCACGGCAGCAGGAGGCTGGGAACCCGGGTA
GAACAGAATTAGAGAGGTGGTCACTGTGTTGGGCCTTTAATGTTTTCTTGTTGAAACACTAAAAAGAGAA
GAGTTTTTCCCCTTACTTTTAAATTCTAAAAAATAACATGAAGTATCATTTGAGTTCCCAGAACTCGGGA
GGGGAAATGAAATCTCGTTCTTCCAGATCAGAATCTGAGGTGGTTGCAGTCGTCAGGGTAGGTAACGGGA
GAGGCAGGCAGAGCATGGGATATTTCAAACAAAACCAAGCTTATCATAATGTAAATTAGCGGCTACAGAT
GGCTCCTGACCATGTGTCTTCAGAAGCAAGACAAGGCATGTATGTCTCCAGGTCGGAGTGTGAACCTGAT
CTTGGGCTAACCTAAGATAATTCAGATTTCTTAGCAAAGGCAAAAACAGATTTGGGGAGGGGCCGGTTTA
AACGGTTGAGAAAATAAAATCTTGATGATGAGGAAATGACAAACATCTTTAAAGTTGTTACTAAAGAAAA
TTTAGGTAAAAGCAATTCCAGAAAACCCTTACGAATACAGCGTGGAAGAGGACCTGCAGTGTCCTTTGAT
TAGAACTATGTGGTGCAGAAGTCGCCGCAGGGCTGATGGGCAGATCTCTTGGCTGTGGGAAGCTTCGTGC
TGTTGCCTTTCTACACCTTAAGTCCTATTTGATGGATTTGGATATGCCAGATGAGATAATGCCAATATTG
TTCTGGGTAACTCCTTTTTTATTTTGCTATAACTTTTCTAATAAAAATTTAAACCTTTGAAAAAAAAAAA AAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_201638

Insert Size: 1371 bp

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).

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:	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:	BC052204, AAH52204
RefSeq Size:	2595 bp
RefSeq ORF:	1371 bp
Locus ID:	210529
UniProt ID:	Q3UIK4
Cytogenetics:	3 G1
Gene 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: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]