

Product datasheet for **SC122731**

Metallothionein (MT1A) (NM_005946) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Metallothionein (MT1A) (NM_005946) Human Untagged Clone
Tag: Tag Free
Symbol: Metallothionein
Synonyms: MT-1A; MT-IA; MT1; MT1S; MTC
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_005946 edited
 AAGCCTTCCACGTGCGCCTTATAGCCTCTCAACTTCTTGCTTGGGATCTCCAACCTCACC
 GCGGCTCGAAATGGACCCCAACTGCTCCTGCGCCACTGGTGGCTCCTGCACCTGCACTGG
 CTCTGCAAATGCAAAGAGTGCAAATGCAACTCCTGCAAGAAGAGCTGCTGCTCCTGCTG
 CCCATGAGCTGTGCCAAGTGTGCCAGGGCTGCATCTGCAAAGGGGCATCAGAGAAGTG
 CAGCTGCTGTGCCTGATGTCCGGACAGCCCTGCTCGAAGATATAGAAAGAGTGACCTGCA
 CAACTTGGAAATTTTTTCCATACAACCCTGACCCATTTACTGTATTTTTTTAATGAA
 ATATGTGAATGATAATAAAAGTTGCTGACTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 AA

5' Read Nucleotide Sequence: >OriGene 5' read for NM_005946 unedited
 AGGTGCAATTTGTAACGACTCATATAGGGCGGCCGCAATTCGCCATTACGGCCGGGGA
 AGCCTTCCACGTGCGCCTTATAGCCTCTCAACTTCTTGCTTGGGATCTCCAACCTCACC
 GCGGCTCGAAATGGACCCCAACTGCTCCTGCGCCACTGGTGGCTCCTGCACCTGCACTGG
 TCCTGCAAATGCAAAGAGTGCAAATGCAACTCCTGCAAGAAGAGCTGCTGCTCCTGCTG
 CCCATGAGCTGTGCCAAGTGTGCCAGGGCTGCATCTGCAAAGGGGCATCAGAGAAGTG
 AGCTGCTGTGCCTGATGTCCGGACAGCCCTGCTCGAAGATATAGAAAGAGTGACCTGCAC
 AACTTGGAAATTTTTTCCATACAACCCTGACCCATTTACTGTATTTTTTTAATGAA
 TATGTGAATGATAATAAAAGTTGCTGACTTANNNNAAAAAAAAANNNAAAAAAAAAAAAAA
 AAAAAAAAAAACCCCNAAAAAAAAAAAAAAAAAAAAAAAAAATGTGCGCCGCTCGG
 CCCTCAACTCTAGATTGCGGCCGCGGTATAGCTGTTTCTGAACAGATCCCGGGTGGCA
 TCCCTGTGACCCCTCCAAGTGCCTCCTGCGCCCTGGAAGTTGCCACTCCAGTGCCAAC
 CAGCCTTGTCTAATAAAATTAAGTTGCATCATTTGCTGACTAGGTGTCTTCTATAT
 ATTATGGTGGAGGGGGTGGTTATTTGAACAAAGGGCCAAATTTGGAAAAAACCTG
 TGGGCCCCGCGGTCCATTGGGAACACAACCTGGAATGGAGTGGCAAACTTTGGCCTCC
 GGAATCCCCCTCCCTGGTTAAGCCAATTTCCCTGCCTCAACCTCCCAATTGTTGG
 GTTCCCGGCTGCTTGAACAGCCTAT



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Restriction Sites:	Please inquire
ACCN:	NM_005946
Insert Size:	465 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:	<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_005946.2</u> , <u>NP_005937.2</u>
RefSeq Size:	468 bp
RefSeq ORF:	186 bp
Locus ID:	4489
UniProt ID:	<u>P04731</u>
Cytogenetics:	16q13
Gene Summary:	This gene is a member of the metallothionein family of genes. Proteins encoded by this gene family are low in molecular weight, are cysteine-rich, lack aromatic residues, and bind divalent heavy metal ions. The conserved cysteine residues co-ordinate metal ions using mercaptide linkages. These proteins act as anti-oxidants, protect against hydroxyl free radicals, are important in homeostatic control of metal in the cell, and play a role in detoxification of heavy metals. Disruption of two metallothionein genes in mouse resulted in defects in protection against heavy metals, oxidative stress, immune reactions, carcinogens, and displayed obesity. [provided by RefSeq, Sep 2017]