

## Product datasheet for **SC125000**

### Metallothionein (MT2A) (NM\_005953) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Metallothionein (MT2A) (NM_005953) Human Untagged Clone
Tag:	Tag Free
Symbol:	Metallothionein
Synonyms:	MT-2; MT-II; MT2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_005953, the custom clone sequence may differ by one or more nucleotides

[ATGGATCCCAACTGCTCCTGCGCCGCCGGTGACTCCTGCACCTGCGCCGGCTCCTGCAAATGCAAAGAGT  
GCAAATGCACCTCCTGCAAGAAAAGCTGCTGCTCCTGCTGCCCTGTGGGCTGTGCCAAGTGTGCCAGGG  
CTGCATCTGCAAAGGGCGTCGGACAAGTGCAGCTGCTGCGCCTGA](#)

#### 5' Read Nucleotide Sequence:

>OriGene 5' read for NM\_005953 unedited  
CACGAGGCGAACC CGT GCAACCTGTCCGACTCTAGCCGCTTTCAGCTCGCCATGG  
ATCCCAACTGCTCCTGCGCCGCCGGTGACTCCTGCACCTGCGCCGGCTCCTGCAAATGCA  
AAGAGTGCAAATGCACCTCCTGCAAGAAAAGCTGCTGCTCCTGCTGCCCTGTGGGCTGTG  
CCAAGTGTGCCAGGGCTGCATCTGCAAAGGGCGTCGGACAAGTGCAGCTGCTGCGCCT  
GATGCTGGGACAGCCCCGCTCCCAGATGTAAAGAACGCGACTTCCACAAACCTGGATTTT  
TTATGTACAACCCTGACCGTGACCGTTTGCTATATTCCTTTTTCTATGAAATAATGTGAA  
TGATAATAAACAGCTTTGACTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

#### Restriction Sites:

NotI-NotI

#### ACCN:

NM\_005953

#### 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).



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<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_005953.2, NP_005944.1</u>
<b>RefSeq Size:</b>	372 bp
<b>RefSeq ORF:</b>	186 bp
<b>Locus ID:</b>	4502
<b>UniProt ID:</b>	<u>P02795</u>
<b>Cytogenetics:</b>	16q13
<b>Gene Summary:</b>	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, altering the intracellular concentration of heavy metals in the cell. 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. The encoded protein interacts with the protein encoded by the homeobox containing 1 gene in some cell types, controlling intracellular zinc levels, affecting apoptotic and autophagy pathways. Some polymorphisms in this gene are associated with an increased risk of cancer. [provided by RefSeq, Sep 2017]