

# **Product datasheet for RC202748L1**

#### OriGene Technologies, Inc.

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## Metallothionein (MT2A) (NM\_005953) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Metallothionein (MT2A) (NM\_005953) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Metallothionein

Synonyms: MT-2; MT-II; MT2

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC202748).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





st The last codon before the Stop codon of the ORF.

**ACCN:** NM\_005953

ORF Size: 183 bp





### Metallothionein (MT2A) (NM\_005953) Human Tagged Lenti ORF Clone - RC202748L1

**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:** 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 005953.2</u>

 RefSeq Size:
 466 bp

 RefSeq ORF:
 186 bp

 Locus ID:
 4502

 UniProt ID:
 P02795

Cytogenetics: 16q13 MW: 6 kDa

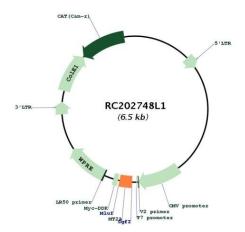
**Gene Summary:** This gene is a member of the metallothionein family of genes. Proteins encoded by this gene

family are low in molecular weight, are cysteine-rich, lack aromatic residues, and bind divalent heavy metal ions, 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.

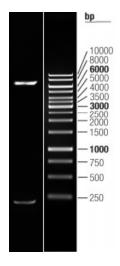
[provided by RefSeg, Sep 2017]



# **Product images:**



Circular map for RC202748L1



Double digestion of RC202748L1 using Sgfl and Mlul  $\,$