OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC205942

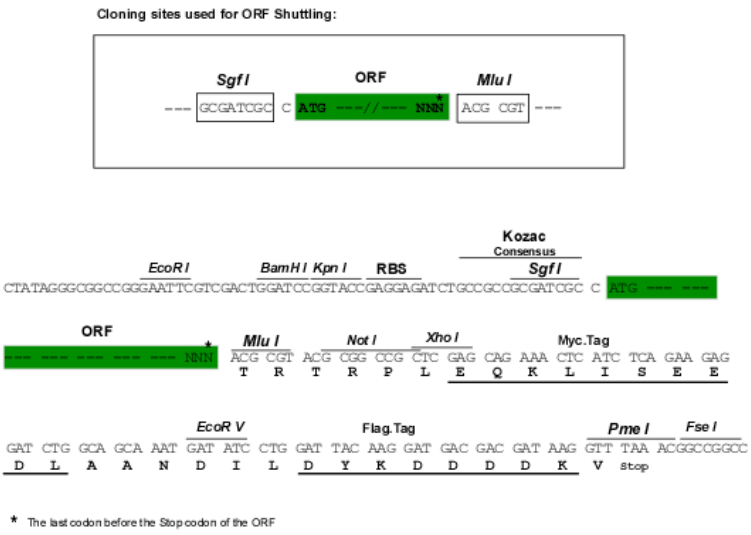
Metallothionein (MT1A) (NM_005946) Human Tagged ORF Clone

Product data:

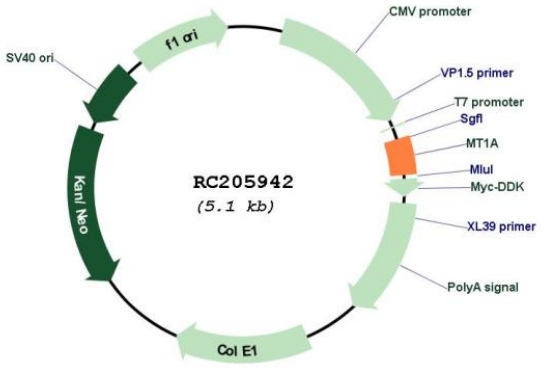
Product Type:	Expression Plasmids
Product Name:	Metallothionein (MT1A) (NM_005946) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MT1A
Synonyms:	MT-1A; MT-IA; MT1; MT1S; MTC
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC205942 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGACCCCAACTGCTCCTGCGCCACTGGTGGCTCCTGCACCTGCACTGGCTCCTGCAAATGCAAAGAGT GCAAATGCAACTCCTGCAAGAAGAGCTGCTGCTCCTGCTGCCCCATGAGCTGTGCCAAGTGTGCCCAGGG CTGCATCTGCAAAGGGGCATCAGAGAAGTGCAGCTGCTGTGCC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RC205942 protein sequence Red=Cloning site Green=Tags(s) MDPNCSCATGGSCTCTGSCKCKECKCNSCKKSCCSCCPMSCAKCAQGCICKGASEKCSCCA TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mk6551_c12.zip
Restriction Sites:	SgfI-MluI

View online »

Cloning Scheme:



Plasmid Map:

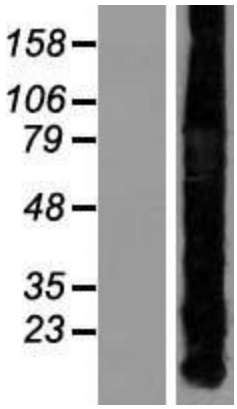


ACCN: NM_005946

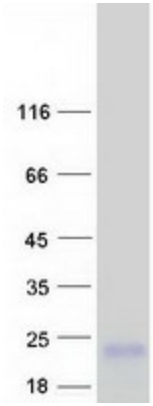
ORF Size: 183 bp

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:	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_005946.1
RefSeq Size:	468 bp
RefSeq ORF:	186 bp
Locus ID:	4489
UniProt ID:	P04731
Cytogenetics:	16q13
MW:	6.1 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. 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]

Product images:



Western blot validation of overexpression lysate (Cat# [LY416963]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205942 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MT1A protein (Cat# [TP305942]). The protein was produced from HEK293T cells transfected with MT1A cDNA clone (Cat# RC205942) using MegaTran 2.0 (Cat# [TT210002]).