

## Product datasheet for **MR204407**

### Metrnl (NM\_144797) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Metrnl (NM_144797) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Metrnl
Synonyms:	9430048M07Rik; BC019776
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204407 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGCGGGGTGCGGTGTGGGCGGCCCGGAGGCGCGGGGCAGCAGTGGCCTCGGTCCCGGGCCCTGGGC  
CGGGTCCGCCCCCGCCGACCGCTGCTGTTGCTGCTACTACTGCTGCTGGGCGGCGGAGCGCTCAGTA  
CTCCAGCGACCTGTGCAGCTGGAAGGGGAGTGGGCTCACCGAGAGGCACGCAGCAAGGAGGTGGAGCAG  
GTGTACCTGCGCTGCTCCGACGGCTCTGTGGAGTGGATGTACCCAACCTGGGCGCTCATTGTTAACCTAC  
GGCCCAACACCTTCTCACCTGCCAGAACTTGACTGTGTGCATCAAGCCTTTCAGGGACTCCTCTGGAGC  
CAATATTTATTTGAAAAAACTGGAGAACTAAGACTGTTGGTGCGGGACATCAGAGGTGAGCCTGGCCAA  
GTGCAGTGCTTACGCTGGAGCAGGGAGGCTTATTTGTGGAGGCGACACCCCAACAGGACATCAGCAGAA  
GGACCACAGGCTTCCAGTATGAGCTGATGAGTGGGAGAGGGGACTGGACCTGCACGTGCTGTGCCCC  
CTGTGGCCTTGCAGTGACACTGAGGTCCTCCTTGCCATCTGTACCAGTGACTTTGTTGTCCGAGGCTTC  
ATTGAGGACGTACACATGTACCAGAACAGCAAGTGTGAGTACCTACCTGCGGGTGAACAGGCTTACAA  
GGCAGAAGAGCAGGGTCTTCCAGCCAGCTCCTGAGGACAGTGGCCACTGGCTGGCCATGTCACAACACT  
GCTGCAGTGTGGAGTACGACCAGGGCATGGGGAATTCCTTCTCACTGGACATGTGCACTTTGGGGAGGCA  
CAACTTGGATGTGCCCCACGCTTGTAGTACTTTCAAAGGATGTACAGGAAAGCAGAAGAAATGGGCATAA  
ACCCCTGTGAAATCAATATGGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204407 protein sequence  
Red=Cloning site Green=Tags(s)

MRGAVWAARRRAGQQWPRSPGPGPPPPPLLLLLLLLLGGASAQYSSDLCSWKGSGLTREARSKEVEQ  
 VYLRCSAGSVEWMYPTGALIVNLRPNTFSPAQNLTVCIKPFDRDSSGANIYLEKTGELRLLVRDIRGEPGQ  
 VQCFSLSEQGLFVEATPQQDISRRTTGFQYELMSGQRGLDLHVL S APCRPCSDTEVLLAICTSDFVVRGF  
 IEDVTHVPEQQVSVIYL RVNRLHRQKSRVFPAPEDSGHWLGHVTLLQCGVRPGHGEFLFTGHVHFGEA  
 QLGCAPRFSDFRMYRKA EEMGINPCEINME

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_144797

**ORF Size:** 936 bp

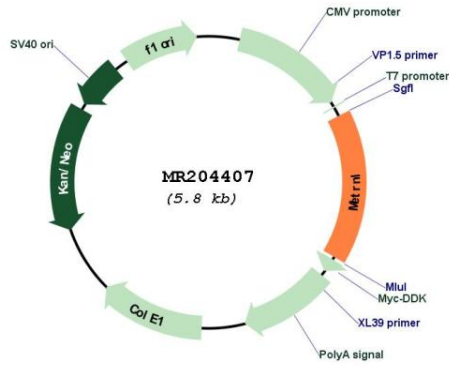
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>	<a href="#">NM_144797.3</a>
<b>RefSeq Size:</b>	2468 bp
<b>RefSeq ORF:</b>	936 bp
<b>Locus ID:</b>	210029
<b>UniProt ID:</b>	<a href="#">Q8VE43</a>
<b>Cytogenetics:</b>	11 E2
<b>MW:</b>	34.5 kDa
<b>Gene Summary:</b>	Hormone induced following exercise or cold exposure that promotes energy expenditure. Induced either in the skeletal muscle after exercise or in adipose tissue following cold exposure and is present in the circulation. Able to stimulate energy expenditure associated with the browning of the white fat depots and improves glucose tolerance. Does not promote an increase in a thermogenic gene program via direct action on adipocytes, but acts by stimulating several immune cell subtypes to enter the adipose tissue and activate their prothermogenic actions. Stimulates an eosinophil-dependent increase in IL4 expression and promotes alternative activation of adipose tissue macrophages, which are required for the increased expression of the thermogenic and anti-inflammatory gene programs in fat. Required for some cold-induced thermogenic responses, suggesting a role in metabolic adaptations to cold temperatures.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR204407