

Product datasheet for **RC217104**

M-CSF (CSF1) (NM_000757) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	M-CSF (CSF1) (NM_000757) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	M-CSF
Synonyms:	CSF-1; MCSF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC217104 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACCGCGCCGGCGCCGCCGGCGCTGCCCTCCCACGACATGGCTGGGCTCCCTGCTGTGTGGTCT
 GTCTCTGGCGAGCAGGAGTATCACCGAGGAGGTGTCGGAGTACTGTAGCCACATGATTGGGAGTGGACA
 CCTGCAGTCTCTGCAGCGGCTGATTGACAGTCAGATGGAGACCTCGTGCCAAATTACATTTGAGTTTGT
 GACCAGGAACAGTTGAAAGATCCAGTGTCTACCTTAAGAAGGCATTTCTCTGTGACAAGACATAATGG
 AGGACACCATGCGCTTCAGAGATAACACCCCCAATGCCATCGCCATTGTGCAGCTGCAGAACTCTCTTT
 GAGGCTGAAGAGCTGCTCACCAAGGATTATGAAGAGCATGACAAGGCCTGCGTCCGAACCTTCTATGAG
 ACACCTCTCCAGTTGCTGGAGAAGGTCAAGAATGTCTTTAATGAAACAAAGAATCTCCTTGACAAGGACT
 GGAATATTTTTCAGCAAGAACTGCAACAACAGCTTTGCTGAATGCTCCAGCCAAGATGTGGTGACCAAGCC
 TGATTGCAACTGCCTGTACCCCAAGCCATCCCTAGCAGTGACCCGGCCTCTGTCTCCCTCATCAGCCC
 CTGCCCCCTCCATGGCCCTGTGGCTGGCTTGACCTGGGAGGACTCTGAGGGAACCTGAGGGCAGCTCCC
 TCTTGCTGTGAGCAGCCCCTGCACACAGTGGATCCAGGCAGTGCCAAGCAGCGGCCACCCAGGAGCAC
 CTGCCAGAGCTTTGAGCCGCCAGAGACCCAGTTGTCAAGGACAGCACCATCGGTGGCTCACCACAGCCT
 CGCCCCTCTGTGGGGCCTTCAACCCCGGGATGGAGGATATTCTTGACTCTGCAATGGGCACTAATTGGG
 TCCCAGAAGAAGCCTCTGGAGAGGCCAGTGAGATCCCGTACCCCAAGGGACAGAGCTTTCCCTCCAG
 GCCAGGAGGGGCGAGCATGCAGACAGAGCCCGCCAGACCCAGCAACTTCTCTCAGCATCTTCTCCACTC
 CCTGCATCAGCAAAGGGCCAACAGCCGGCAGATGTAACCTGGTACAGCCTTGCCCAGGTGGGCCCGTGA
 GGCCCCACTGGCCAGGACTGGAATCACACCCCCAGAAGACAGACCATCCATCTGCCCTGCTCAGAGACCC
 CCCGGAGCCAGGCTCTCCAGGATCTCATCACTGCGCCCCCAGGGCCTCAGCAACCCCTCCACCCTCTCT
 GCTCAGCCACAGCTTTCCAGAAGCCACTCTCGGGCAGCGTGCTGCCCTTGGGGAGCTGGAGGGCAGGA
 GGAGCACAGGGATCGGAGGAGCCCGCAGAGCCAGAAGGAGGACCAGCAAGTGAAGGGGACCCAGGCC
 CCTGCCCGTTTTAACTCCGTTCTTTGACTGACACAGGCCATGAGAGGCAGTCCGAGGGATCTCCAGC
 CCGCAGCTCCAGGAGTCTGTCTTCCACCTGCTGGTGGCCAGTGTATCCTGGTCTTGCTGGCCGTCGGAG
 GCCTCTTGTCTACAGGTGGAGGCGCGGAGCCATCAAGAGCCTCAGAGAGCGGATTCTCCCTTGGAGCA
 ACCAGAGGGCAGCCCCCTGACTCAGGATGACAGACAGGTGGAAGTCCAGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217104 protein sequence
 Red=Cloning site Green=Tags(s)

MTAPGAAGRCPPTTWLGSLLLLVCLLASRSITEEVSEYCSHMIGSGHLQSLQRLIDSQMETSCQITFEFV
 DQEQLKDPVICYLKAFLLVQDIMEDTMRFRDNTPNIAIAIVQLQELSLRLKSCFTKDYEEHDKACVRTFYE
 TPLQLLEKVKNFNETKNLLDKDWNIFSKNCNNSFAECSQDVVTKPDCNCLYPKAIPSSDPASVSPHQ
 LAPSMAPVAGLTWEDSEGTGSSLLPGEQLHTVDPGSAKQRPPRSTCQSFEPPETPVVKDSTIGGSPQP
 RPSVGFNPGMEDILDSAMGTNWPPEEASGEASEIPVPQGTLESPSRPGGSMQTEPARPSNFLSASSPL
 PASAKGQQPADVTGTALPRVGPVRPTGQDWNHTPQKTDHPSALLRDPPEPGSPRISLRLPQGLSNPSTLS
 AQPQLSRSHSSGVLPLGELEGRSTRDRRSPAEPGGPASEGAARPLPRFNSVPLTDTGHERQSEGSSS
 PQLQESVHFLLVPSVILVLLAVGGLLFYRWRRRSHQEPQRADSPLEQPEGSPLTQDDRQVELPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6574_d01.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000757

ORF Size: 1662 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

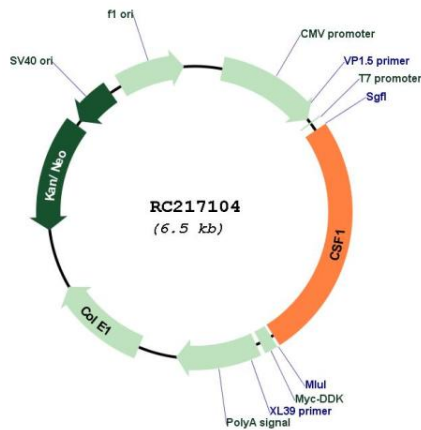
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

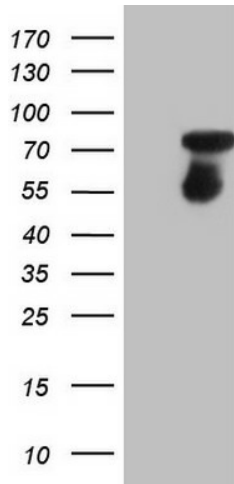
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_000757.3</u> , <u>NP_000748.3</u>
RefSeq Size:	4249 bp
RefSeq ORF:	1665 bp
Locus ID:	1435
UniProt ID:	<u>P09603</u>
Cytogenetics:	1p13.3
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, Hematopoietic cell lineage
MW:	60.1 kDa
Gene Summary:	The protein encoded by this gene is a cytokine that controls the production, differentiation, and function of macrophages. The active form of the protein is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. The encoded protein may be involved in development of the placenta. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2011]

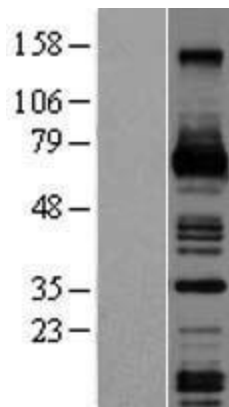
Product images:



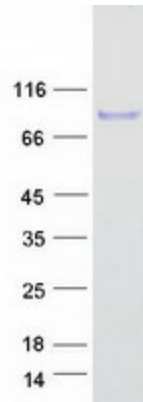
Circular map for RC217104



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CSF1 (Cat# RC217104, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CSF1 (Cat# [TA806568]). Positive lysates [LY424534] (100ug) and [LC424534] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424534]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217104 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CSF1 protein (Cat# [TP317104]). The protein was produced from HEK293T cells transfected with CSF1 cDNA clone (Cat# RC217104) using MegaTran 2.0 (Cat# [TT210002]).