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 MR211364

Csf1r (NM_001037859) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Csf1r (NM_001037859) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Csf1r
Synonyms:	AI323359; CD115; CSF-1R; Csfmr; Fim-2; Fim2; Fms; M-CSF-R; M-CSFR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>MR211364 representing NM_001037859
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTTGGGGCCTCCTCTGGTCCTGCTGCTGGCCACAGTTTGGCATGGTCAGGGGGCCCCTGTCATCG
AGCCTAGTGGCCCAGAACTGGTTGTAGAGCCGGGTGAAACGGTGACCCTGCGATGTGTGAGCAATGGCAG
TGTGGAATGGGATGGCCCCATCTCTCCCTACTGGACCTTGGACCCTGAATCTCCCGGAAGCACCCTGACC
ACAAGAAACGCGACCTTCAAAAACACTGGGACCTACCGTTGTACCGAGCTTGAAGACCCCATGGCAGGCA
GTACCACCATCCACTTGTATGTCAAAGATCCGGCCCACTCTTGGAATTTGCTGGCACAGGAGGTGACAGT
GGTTGAGGGCCAGGAAGCTGTGCTGCCCTGTCTGATCACTGACCCTGCACTGAAGGACAGTGTCTCACTG
ATGCGTGAGGGGGGCAGGCAGGTCTTACGCAAAACGGTCTACTTCTTCTCGCCATGGCGAGGGTTCATTA
TCCGCAAGGCTAAAGTCCTTGACAGCAATACCTACGTGTGCAAGACCATGGTGAATGGTAGGGAATCCAC
CTCCACTGGCATCTGGCTTAAGGTGAATCGAGTCCACCCAGAGCCCCCACAGATAAAATTGGAGCCTAGC
AAGCTGGTGCGGATTCGAGGGGAGGCTGCGCAGATCGTGTGCTCGGCCACTAACGCCGAAGTGGGATTCA
ACGTTATCCTCAAACGTGGAGACACCAAGCTGGAAATCCCCCTAAACAGTGACTTCCAAGATAACTATTA
TAAAAAAGTCCGGGCTCTCAGTCTCAACGCTGTGGACTTCCAAGACGCTGGCATATATTCTTGTGTGGCC
AGCAATGATGTTGGCACACGCACGGCCACCATGAACTTCCAGGTGGTGGAGAGTGCCTACTTAAACTTGA
CCTCTGAGCAGAGCCTCTTGCAGGAGGTGTCTGTGGGTGACAGCCTCATCCTCACGGTCCATGCAGATGC
CTACCCTAGCATACAGCATTACAACTGGACCTACCTAGGTCCATTCTTTGAAGACCAGCGCAAGCTTGAG
TTTATCACCCAAAGGGCCATATACAGGTACACATTCAAGCTCTTTCTGAACCGTGTAAAGGCCTCAGAGG
CGGGCCAGTACTTCTTAATGGCACAAAACAAGGCAGGCTGGAATAATCTGACCTTTGAGCTCACCCTGCG
ATATCCCCCAGAGGTCAGTGTTACATGGATGCCTGTGAATGGCTCTGATGTCCTGTTCTGTGACGTCTCT
GGGTACCCTCAGCCCAGCGTGACATGGATGGAGTGCAGGGGCCACACCGATAGGTGTGATGAAGCCCAGG
CTTTGCAGGTTTGGAATGACACCCACCCTGAAGTCCTGAGTCAGAAGCCCTTCGACAAAGTGATCATTCA
GAGCCAGCTGCCCATTGGGACCTTAAAACACAACATGACTTATTTTTGCAAAACCCACAACAGTGTGGGT
AACAGCTCTCAGTACTTCAGGGCCGTCTCCCTAGGACAAAGCAAGCAGCTCCCCGATGAGTCCCTCTTCA
CTCCGGTGGTGGTGGCCTGTATGTCTGTCATGTCTCTGCTGGTGCTACTGCTGTTGCTGCTCTTGTACAA
GTACAAGCAGAAGCCGAAGTACCAGGTGCGCTGGAAGATCATCGAGAGATACGAAGGCAATAGCTACACC
TTCATTGACCCTACTCAGTTGCCCTACAATGAGAAGTGGGAGTTCCCTCGGAACAACCTGCAGTTTGGTA
AGACTCTAGGAGCCGGTGCCTTTGGGAAGGTGGTGGAGGCTACAGCCTTTGGTCTGGGCAAAGAAGATGC
AGTGCTGAAGGTGGCTGTGAAGATGCTAAAGTCCACGGCTCATGCTGATGAGAAGGAGGCCCTGATGTCA
GAGCTGAAGATCATGAGTCACCTGGGACAGCACGAGAATATAGTCAACCTCTTGGGAGCCTGTACTCACG
GAGGACCTGTCCTGGTCATCACTGAATACTGCTGCTATGGAGACCTACTCAACTTTCTCCGAAGGAAGGC
CGAGGCTATGCTAGGACCCAGCCTGAGTCCTGGTCAGGACTCCGAGGGAGACTCCAGCTACAAGAACATC
CACCTGGAGAAGAAATATGTGCGCAGGGACAGTGGCTTCTCCAGTCAGGGTGTAGACACCTACGTGGAGA
TGAGGCCTGTCTCGACTTCTTCAAGTGACTCCTTCTTTAAGCAAGATCTGGACAAAGAGGCCAGCCGGCC
CCTGGAGCTCTGGGACCTGCTCCACTTCTCCAGCCAAGTGGCTCAGGGCATGGCCTTCCTTGCTTCTAAA
AACTGCATCCACCGGGACGTAGCAGCTCGAAACGTGCTGTTGACCAGCGGACATGTGGCCAAGATTGGGG
ACTTTGGACTGGCTAGGGACATCATGAATGACTCCAACTATGTTGTCAAGGGCAATGCCCGCCTGCCTGT
AAAGTGGATGGCCCCAGAGAGCATCTTTGACTGCGTCTACACAGTTCAGAGTGATGTGTGGTCCTACGGC
ATCCTCCTCTGGGAGATCTTCTCGCTTGGTCTGAACCCCTACCCCGGCATCCTAGTGAACAACAAGTTCT
ACAAACTGGTGAAGGATGGATACCAAATGGCCCAGCCTGTATTTGCACCGAAGAACATATACAGCATCAT
GCAGTCCTGCTGGGACCTGGAGCCTACCAGAAGACCCACCTTCCAACAGATCTGCTTCCTCCTCCAGGAG
CAGGCCCGACTGGAGAGGAGAGACCAGGACTATGCTAACCTGCCAAGCAGCGGTGGCAGCAGCGGCAGTG
ACAGTGGTGGTGGCAGCAGCGGTGGCAGCAGCAGTGAGCCAGAAGAGGAGAGCTCCAGTGAACACCTGGC
CTGCTGTGAGCCAGGGGACATCGCCCAGCCCCTGCTGCAGCCTAACAACTACCAGTTCTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

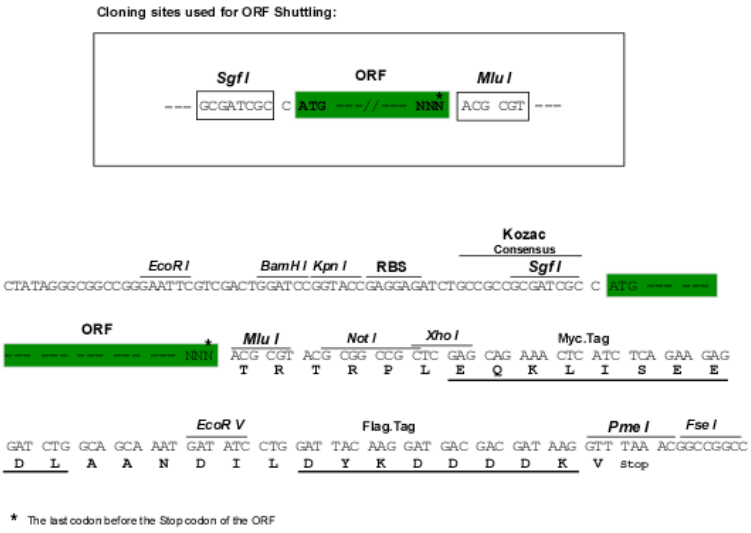
>MR211364 representing NM_001037859
Red=Cloning site Green=Tags(s)

MELGPPLVLLLATVWHGQGAPVIEPSGPELVVEPGETVTLRCVSNGSVEWDGPISPYWTLDPESPGSTLT
TRNATFKNTGTYRCTELEDPMAGSTTIHLYVKDPAHSWNLLAQEVTVVEGQEAVLPCLITDPALKDSVSL
MREGGRQVLRKTVYFFSPWRGFIIRKAKVLDSNTYVCKTMVNGRESTSTGIWLKVNRVHPEPPQIKLEPS
KLVRIRGEAAQIVCSATNAEVGFNVILKRGDTKLEIPLNSDFQDNYYKKVRALSLNAVDFQDAGIYSCVA
SNDVGTRTATMNFQVVESAYLNLTSEQSLLQEVSVGDSLILTVHADAYPSIQHYNWTYLGPFFEDQRKLE
FITQRAIYRYTFKLFLNRVKASEAGQYFLMAQNKAGWNNLTFELTLRYPPEVSVTWMPVNGSDVLFCDVS
GYPQPSVTWMECRGHTDRCDEAQALQVWNDTHPEVLSQKPFDKVIIQSQLPIGTLKHNMTYFCKTHNSVG
NSSQYFRAVSLGQSKQLPDESLFTPVVVACMSVMSLLVLLLLLLLYKYKQKPKYQVRWKIIERYEGNSYT
FIDPTQLPYNEKWEFPRNNLQFGKTLGAGAFGKVVEATAFGLGKEDAVLKVAVKMLKSTAHADEKEALMS
ELKIMSHLGQHENIVNLLGACTHGGPVLVITEYCCYGDLLNFLRRKAEAMLGPSLSPGQDSEGDSSYKNI
HLEKKYVRRDSGFSSQGVDTYVEMRPVSTSSSDSFFKQDLDKEASRPLELWDLLHFSSQVAQGMAFLASK
NCIHRDVAARNVLLTSGHVAKIGDFGLARDIMNDSNYVVKGNARLPVKWMAPESIFDCVYTVQSDVWSYG
ILLWEIFSLGLNPYPGILVNNKFYKLVKDGYQMAQPVFAPKNIYSIMQSCWDLEPTRRPTFQQICFLLQE
QARLERRDQDYANLPSSGGSSGSDSGGGSSGGSSSEPEEESSSEHLACCEPGDIAQPLLQPNNYQFC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



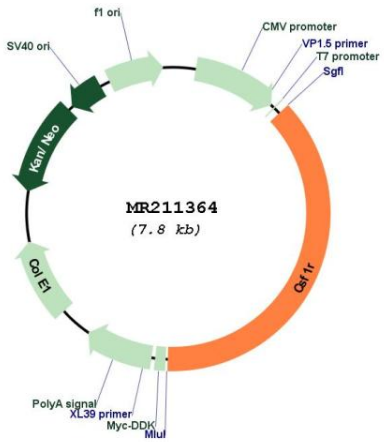
ACCN: NM_001037859

ORF Size: 2931 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_001037859.2, NP_001032948.2
RefSeq Size:	3875 bp
RefSeq ORF:	2934 bp
Locus ID:	12978
UniProt ID:	P09581
Cytogenetics:	18 34.41 cM
MW:	109.6 kDa

Gene Summary: Tyrosine-protein kinase that acts as cell-surface receptor for CSF1 and IL34 and plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. Promotes the release of proinflammatory chemokines in response to IL34 and CSF1, and thereby plays an important role in innate immunity and in inflammatory processes. Plays an important role in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone and tooth development. Required for normal male and female fertility, and for normal development of milk ducts and acinar structures in the mammary gland during pregnancy. Promotes reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration, and promotes cancer cell invasion. Activates several signaling pathways in response to ligand binding. Phosphorylates PIK3R1, PLCG2, GRB2, SLA2 and CBL. Activation of PLCG2 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate, that then lead to the activation of protein kinase C family members, especially PRKCD. Phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leads to activation of the AKT1 signaling pathway. Activated CSF1R also mediates activation of the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1, and of the SRC family kinases SRC, FYN and YES1. Activated CSF1R transmits signals both via proteins that directly interact with phosphorylated tyrosine residues in its intracellular domain, or via adapter proteins, such as GRB2. Promotes activation of STAT family members STAT3, STAT5A and/or STAT5B. Promotes tyrosine phosphorylation of SHC1 and INPP5D/SHIP-1. Receptor signaling is down-regulated by protein phosphatases, such as INPP5D/SHIP-1, that dephosphorylate the receptor and its downstream effectors, and by rapid internalization of the activated receptor. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211364