

## Product datasheet for **SC323543**

### MCSF Receptor (CSF1R) (NM\_005211) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MCSF Receptor (CSF1R) (NM_005211) Human Untagged Clone
Tag:	Tag Free
Symbol:	MCSF Receptor
Synonyms:	BANDDOS; C-FMS; CD115; CSF-1R; CSFR; FIM2; FMS; HDLS; M-CSF-R
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323543 sequence for NM_005211 edited (data generated by NextGen Sequencing)

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ATGGGCCAGGATTCTGCTGCTCCTGCTGGTGGCCACAGCTTGGCATGGTCAGGGAATC
CCAGTGATAGATCCCAGTGTCCCTGAGCTGGTCTGTAAGCCAGGAGCAACGGTGACCTTG
CGATGTGTGGCAATGGCAGCGTGAATGGGATGGCCCCCATCACCTCACTGGACCCTG
TACTCTGATGGCTCCAGCAGCATCCTCAGCACCAACAACGCTACCTTCCAAAACAGGGG
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GTCAAAGACCCTGCCGGCCCTGGAACGTGCTAGCACAGGAGGTGGTCTGTTTCGAGGAC
CAGGACGCACTACTGCCCTGTCTGCTCACAGACCCGGTCTGGAAGCAGGCGTCTCGCTG
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TTGAACTTGAGCTCTGAGCAGAACCTCATCCAGGAGGTGACCGTGGGGGAGGGGCTAAC
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TTCTGCCAGAAACCCAGGAGGCTGGAGAGCTCTGACGTTTGGAGCTCACCCCTCGATAC
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GCCTCTGGGTACCCCAAGCTGACATGGCTGCAGTGCAGTGGCCACACTGATAGG
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CAAACCTACGAGTGCAGGGCCCAACAGCGTGGGGAGTGGCTCTGGGCCCTTCATACCC

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ATCTCTGCAGGAGCCACACGCATCCCCGGATGAGTTCCTCTTACACCCAGTGGTGGTC  
 GCCTGCATGTCCATCATGGCCTTGTCTGCTGCTCCTGCTGCTATTGTACAAGTAT  
 AAGCAGAAGCCCAAGTACCAGGTCCGCTGGAAGATCATCGAGAGCTATGAGGGCAACAGT  
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 GAGCTGGAGGAGGAGACTCTAGTGAGCACCTGACCTGCTGCGAGCAAGGGGATATCGCC  
 CAGCCCTTGTGACGCCAACAACTATCAGTTCTGCTGA

Clone variation with respect to NM\_005211.3  
 72 g=>t;726 c=>t;1847 a=>t

**5' Read Nucleotide Sequence:**

>OriGene 5' read for mutant NM\_005211 unedited  
 ACGCCCGTCGAGCAATGGCGGTAGGCGCTGTACGGTGGGAGTTCATATAAGCAGAGCTCGTTTGTG  
 AACCGTCAGAATCTTGTAAATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCCCTGCGGAGCT  
 AGTAGCTGAGAGCTCTGTGCCCTGGGCACCTTGCAGCCCTGCACCTGCCTGCCACTTCCCCACCGAGGCC  
 ATGGGCCAGGAGTTCTGCTGCTCCTGCTGGTGGCCACAGCTTGGCATGGTCAAGGAATCCAGTGATAG  
 ATCCCAGTGTCCCTGAGCTGGTGTGAAGCCAGGAGCAACGGGTGACCTTGGCATGTGTGGGCAATGGCA  
 GCGTGGATTGGGATGGCCCCCATCACCTCACTGGACCCTGACTCTGATGGCTCCAGCAGCATCCTCAG  
 CCACCAACAACGCTACCTTCCAAAACACGGGAATAATCCTTGCAGTACCTGGAAAACCCCTGGGAAGG  
 CAGCCCGCCATCCACCTTTTATTTCAAAAACCCCTGCCCGCCCTTGAACGGGTACCCAAGGGAGGGG  
 GTCGGTTTCAAAAAACAGAAACCCATTACGGCCGTGTGCGTTCCAGAAACCCGGGCGGAAACCCCGG  
 GTCTCTCTCGTGTGCGTTTTGCCGGGCCCTTGTGCCACAACAAAAATACTTTTTCGCCCTGTGG  
 TGGGGTTTCCACCTCCAGGGGCGAGATTTTTTTCAGCACGAGAATAAATTGCGCTGGCCCCATGAGTGG  
 CGCGAAAGATGATATCCTCATATCCTGCGTGCAAGATGCGGAAAGAAGTTCTCCAGGGGCCACCCCTT  
 ACTGGTGTGCTAACTGTGTGAATTATAGGAGAGATGTCCACATATGTGTCTACACAACGCGAGATGACT  
 ATATAGATTCCCCACACAACATATAGCTCGATGGCTCAACTGACGTCTATAATCGTTCAAGATGTACG  
 TCACTGCTCAGGAATGCCATCGCGAGCACAGTCTGTGCAT

**Kinase Domain Sequence:**

>SC323543 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation  
 TACTGCAGATGKAGACCCTCGGAGCTGGAGCCTTTGGGAAGGTGGTGGAGGCCACGGCCTTTGGTCTGGG  
 CAAGGAGGATGCTGTCTGAAGTGGCTGTGATGATGCTGAAGTCCACGGCCATGCTGATGAGAAGGAG  
 GCCCTCATGTCCGAGCTGAAGATCATGAGCCACCTGGGCCAGCAGAGAACATCGTCAACCTTCTGGGAG  
 CCTGTACCCATGGAGGCCCTGACTGGTTCATCACGGAGTACTGTT

**Restriction Sites:**

Please inquire

ACCN:	NM_005211
Insert Size:	3460 bp
OTI Disclaimer:	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
OTI Annotation:	<p>This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell, 2008 May p536-548.</a></p>
Components:	<p>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).</p>
Reconstitution Method:	<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>
RefSeq:	<a href="#">NM_005211.2</a> , <a href="#">NP_005202.2</a>
RefSeq Size:	4006 bp
RefSeq ORF:	2919 bp
Locus ID:	1436
UniProt ID:	<a href="#">P07333</a>
Cytogenetics:	5q32
Domains:	pkinase, TyrKc, S_TKc, ig, IGc2, IG
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, Endocytosis, Hematopoietic cell lineage, Pathways in cancer

**Gene Summary:**

The protein encoded by this gene is the receptor for colony stimulating factor 1, a cytokine which controls the production, differentiation, and function of macrophages. This receptor mediates most if not all of the biological effects of this cytokine. Ligand binding activates the receptor kinase through a process of oligomerization and transphosphorylation. The encoded protein is a tyrosine kinase transmembrane receptor and member of the CSF1/PDGF receptor family of tyrosine-protein kinases. Mutations in this gene have been associated with a predisposition to myeloid malignancy. The first intron of this gene contains a transcriptionally inactive ribosomal protein L7 processed pseudogene oriented in the opposite direction. Alternative splicing results in multiple transcript variants. Expression of a splice variant from an LTR promoter has been found in Hodgkin lymphoma (HL), HL cell lines and anaplastic large cell lymphoma. [provided by RefSeq, Mar 2017]

Transcript Variant: This variant (1) differs in the 5' UTR compared to variant 4. Variants 1, 2 and 4 encode the same protein.