

Product datasheet for RC202180

MCP1 (CCL2) (NM_002982) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MCP1 (CCL2) (NM_002982) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CCL2
Synonyms: GDGF-2; HC11; HSMCR30; MCAF; MCP-1; MCP1; SCYA2; SMC-CF
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC202180 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAAGTCTCTGCCGCCCTTCTGTGCCTGCTGCTCATAGCAGCCACCTTCATCCCCAAGGGCTCGCTC
AGCCAGATGCAATCAATGCCAGTCACCTGCTGTTATAACTTCACCAATAGGAAGATCTCAGTGCAGAG
GCTCGCGAGCTATAGAAGAATCACCAGCAGCAAGTGTCCCAAAGAAGCTGTGATCTTCAAGACCATTGTG
GCCAAGGAGATCTGTGCTGACCCCAAGCAGAAGTGGGTTTCAGGATTCATGGACCACCTGGACAAGCAAA
CCCAAACCTCCGAAGACT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202180 protein sequence
Red=Cloning site Green=Tags(s)

MKVSAALLCLLLIAATFIPQGLAQPDAINAPVTCCYNFTNRKISVQRLASYRRITSSKCPKEAVIFKTIV
AKEICADPKQKVVQDSDMDHLDKQTQTPKT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6001_d03.zip

Restriction Sites: SgfI-MluI

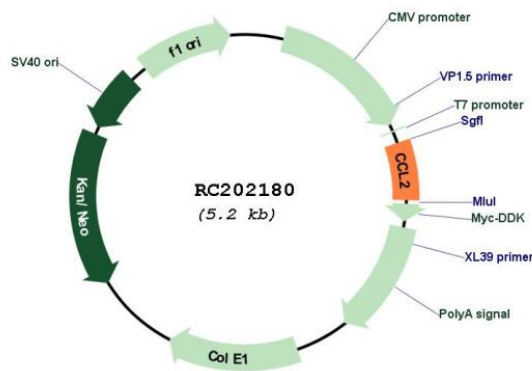


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Cloning Scheme:



Plasmid Map:



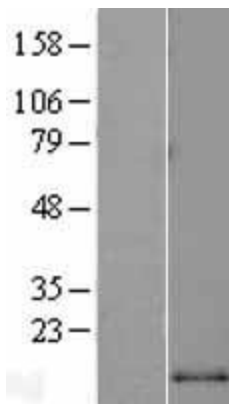
ACCN: NM_002982

ORF Size: 297 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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none"> 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_002982.4
RefSeq Size:	760 bp
RefSeq ORF:	300 bp
Locus ID:	6347
UniProt ID:	P13500
Cytogenetics:	17q12
Domains:	IL8
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Chemokine signaling pathway, Cytokine-cytokine receptor interaction, NOD-like receptor signaling pathway
MW:	11 kDa

Gene Summary:

This gene is one of several cytokine genes clustered on the q-arm of chromosome 17. Chemokines are a superfamily of secreted proteins involved in immunoregulatory and inflammatory processes. The superfamily is divided into four subfamilies based on the arrangement of N-terminal cysteine residues of the mature peptide. This chemokine is a member of the CC subfamily which is characterized by two adjacent cysteine residues. This cytokine displays chemotactic activity for monocytes and basophils but not for neutrophils or eosinophils. It has been implicated in the pathogenesis of diseases characterized by monocytic infiltrates, like psoriasis, rheumatoid arthritis and atherosclerosis. It binds to chemokine receptors CCR2 and CCR4. Elevated expression of the encoded protein is associated with severe acute respiratory syndrome coronavirus 2 (SARS‐CoV‐2) infection. [provided by RefSeq, Aug 2020]

Product images:


Western blot validation of overexpression lysate (Cat# [LY401046]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202180 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CCL2 protein (Cat# [TP302180]). The protein was produced from HEK293T cells transfected with CCL2 cDNA clone (Cat# RC202180) using MegaTran 2.0 (Cat# [TT210002]).