

Product datasheet for MR225805

Ccr2 (NM_009915) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ccr2 (NM_009915) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ccr2
Synonyms:	Cc-ckr-2; Ccr2a; Ccr2b; Ckr2; Ckr2a; Ckr2b; Cmkbr2; mJe-r
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR225805 representing NM_009915 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGACAATAATATGTTACCTCAGTTCATCCACGGCATACTATCAACATCTCATTCTCTATTTACAC
GAAGTATCCAAGAGCTTGATGAAGGGGCCACCACCGTATGACTACGATGATGGTGAGCCTTGTCATAA
AACCAGTGTGAAGCAAATGGAGCTTGGATCCTGCCTCCACTCTACTCCCTGGTATTCATCTTTGGTTTT
GTGGGCAACATGTTGGTCATTATAATTCTGATAGGCTGTAAAAAGCTGAAGAGCATGACTGATATCTATC
TGCTCAACTTGGCCATCTCTGACCTGCTTCTCCTGCTCACATTACCATTCTGGGCTCACTATGCTGCAAA
TGAGTGGGTCTTTGGGAATATAATGTGTAAGTATTCACAGGGCTCTATCACATTGGTTATTTGGTGGA
ATCTTTTTTATTATCCTCCTGACAATTGATAGGTAAGTACTTGGCTATTGTTTCATGCTGTGTTTGCCTTAAAG
CCAGGACAGTTACCTTTGGGGTGATAACAAGTGTAGTCACTTGGGTGGTGGCTGTGTTTGCCTCTTACC
AGGAATCATATTTACTAAATCCAACAAGATGATCACCATTACACCTGTGGCCCTATTTTACACAACATA
TGGAAGAATTTCCAACAATAATGAGAAATATCTTGAGCCTGATCCTGCCTCTACTTGTGATGGTATCT
GCTACTCAGGAATCTCCACACCCTGTTTCGCTGTAGGAATGAGAAGAAGAGGCACAGGGCTGTGAGGCT
CATCTTTGCCATCATGATTGTCTACTTTCTCTTCTGGACTCCATAACAATATTGTTCTCTTCTTGACCACC
TTCCAGGAATCCTTGGGAATGAGTAAGTGTGATTGACAAGCACTTAGACCAGCCATGCAGGTGACAG
AGACTCTTGGAAATGACACACTGCTGCATTAATCCTGTCAATTTATGCCTTTGTTGGAGAGAAGTTCCGAAG
GTATCTCTCCATATTTTTAGAAAAGCACATTGCTAAACGCTCTGCAAACAGTGCCAGTTTTCTATAGG
GAGACAGCAGATCGAGTGAAGTCTACATTCCTTCCACTGGGGAGCAAGAGGTCTCGGTTGGGTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >MR225805 representing NM_009915
 Red=Cloning site Green=Tags(s)

MEDNNMLPQFIHGILSTSHSLFTRSIQELDEGATTPYDYDDGEPCHKTSVKQIGAWILPPLYSLVFI FGF
 VGNMLVIIILIGCKKLSMTDIYLLNLAI SDLLFLLTLPFWAHYAANWVFGNIMCKVFTGLYHIGYFGG
 IFFIILLTIDRYLAIVHAVFALKARTVTFGVITSVVTWVAVFASLPGIIFTKSKQDDHHYTCGPYFTQL
 WKNFQTIMRNILSLILPLLVMVICYSGILHTLFRCRNEKKRHRAVRLIFAIMIVYFLFWTPYNI VFLFTT
 FQESLGMNSNCVIDKHLDAQMVTETLGMTHCCINPVIYAFVGEKFRRYLSIFFRKHI AKRLCKQCPVFYR
 ETADRV SSTFTPSTGEQEVSVGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_009915

ORF Size: 1119 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_009915.2](#), [NP_034045.1](#)

RefSeq Size: 3589 bp

RefSeq ORF: 1122 bp

Locus ID: 12772

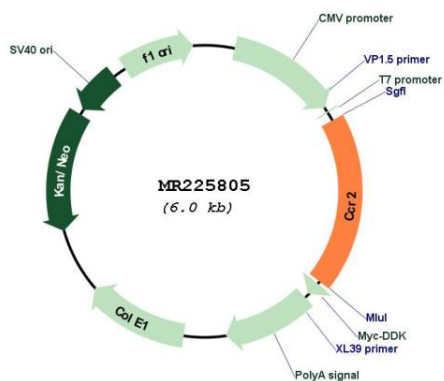
UniProt ID: [P51683](#)

Cytogenetics: 9 75.05 cM

MW: 43.2 kDa

Gene Summary: Key functional receptor for CCL2 but can also bind CCL7 and CCL12 chemokines (PubMed:8631787, PubMed:8662823, PubMed:8996246). Its binding with CCL2 on monocytes and macrophages mediates chemotaxis and migration induction through the activation of the PI3K cascade, the small G protein Rac and lamellipodium protrusion (By similarity). Also acts as a receptor for the beta-defensin DEFB106A/DEFB106B (By similarity). Regulates the expression of T-cell inflammatory cytokines and T-cell differentiation, promoting the differentiation of T-cells into T-helper 17 cells (Th17) during inflammation (PubMed:28507030). Facilitates the export of mature thymocytes by enhancing directional movement of thymocytes to sphingosine-1-phosphate stimulation and up-regulation of S1P1R expression; signals through the JAK-STAT pathway to regulate FOXO1 activity leading to an increased expression of S1P1R (PubMed:29930553). Plays an important role in mediating peripheral nerve injury-induced neuropathic pain (PubMed:29993042). Increases NMDA-mediated synaptic transmission in both dopamine D1 and D2 receptor-containing neurons, which may be caused by MAPK/ERK-dependent phosphorylation of GRIN2B/NMDAR2B (PubMed:29993042). Mediates the recruitment of macrophages and monocytes to the injury site following brain injury (PubMed:24806994, PubMed:29632244).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225805