

## Product datasheet for MR200291

### Cxcl10 (NM\_021274) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cxcl10 (NM\_021274) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Cxcl10  
**Synonyms:** C7; CRG-2; gIP-10; Ifi10; INP10; IP-10; IP10; mob-1; Scyb10  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR200291 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAACCAAGTCTGCCGTCATTTCTGCCTCATCTGCTGGTCTGAGTGGGACTCAAGGGATCCCTC  
 TCGCAAGGACGGTCCGCTGCAACTGCATCCATATCGATGACGGGCCAGTGAGAATGAGGGCCATAGGGAA  
 GCTTGAAATCATCCCTGCGAGCCTATCCTGCCACGTGTTGAGATCATTGCCACGATGAAAAAGAATGAT  
 GAGCAGAGATGTCTGAATCCGGAATCTAAGACCATCAAGAATTTAATGAAAGCGTTTAGCCAAAAAAGGT  
 CTTAAAGGGCTCCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR200291 protein sequence  
 Red=Cloning site Green=Tags(s)  
 MNPSAAVIFCLILLGLSGTQGIPLARTVRCNCIHIDDGPVRMRAIGKLEIIPASLSCRVEIIATMKKND  
 EQRCLNPESKTIKNLMKAFSQKRSKRAP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**



ACCN: NM\_021274

ORF Size: 297 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](mailto: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.

**RefSeq:** [NM\\_021274.2](#)

**RefSeq Size:** 1120 bp

**RefSeq ORF:** 297 bp

**Locus ID:** 15945

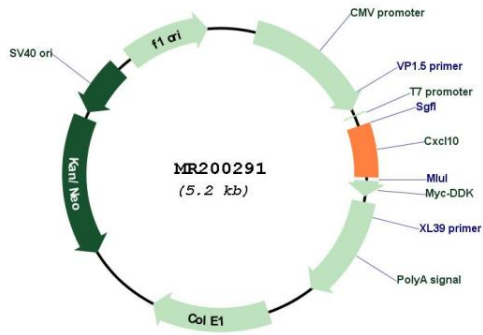
**UniProt ID:** [P17515](#)

**Cytogenetics:** 5 46.57 cM

**MW:** 10.8 kDa

**Gene Summary:** Pro-inflammatory cytokine that is involved in a wide variety of processes such as chemotaxis, differentiation, and activation of peripheral immune cells, regulation of cell growth, apoptosis and modulation of angiostatic effects (By similarity) (PubMed:28623423). Plays thereby an important role during viral infections by stimulating the activation and migration of immune cells to the infected sites (PubMed:18624292, PubMed:19017990, PubMed:28468883). Mechanistically, binding of CXCL10 to the CXCR3 receptor activates G protein-mediated signaling and results in downstream activation of phospholipase C-dependent pathway, an increase in intracellular calcium production and actin reorganization. In turn, recruitment of activated Th1 lymphocytes occurs at sites of inflammation (By similarity). Activation of the CXCL10/CXCR3 axis plays also an important role in neurons in response to brain injury for activating microglia, the resident macrophage population of the central nervous system, and directing them to the lesion site. This recruitment is an essential element for neuronal reorganization (PubMed:15456824).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR200291