

## Product datasheet for **MG227496**

### Ccr6 (NM\_001190336) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ccr6 (NM\_001190336) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Ccr6  
**Synonyms:** CC-CKR-6; CCR-6; Cmkbr6; KY411  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG227496 representing NM\_001190336  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGAATCCACAGAGTCCTACTTTGGAACGGATGATTATGACAACACAGAGTATTATTCTATTCTCCAG  
 ACCATGGCCATGCTCCCTAGAAGAGGTCAGAACTTCACCAAGGTATTTGTGCCAATTGCCTACTCCTT  
 AATATGTGTCTTTGGCCTCCTGGCAACATTATGGTGGTATGACCTTTGCCTTCTACAAGAAAGCCAGA  
 TCCATGACTGACGTCTACCTGTTGAACATGGCCATCACAGACATACTCTTTGTCCTACCCTACCGTTCT  
 GGGCAGTTACTCATGCCACCAACTTTGGGTTTTAGCGATGCACTGTGTAAGTATGAAAGGCACATA  
 TGGCGTCAACTTTAACTGTGGGATGCTGCTCCTGGCCTGTATCAGCATGGACCGGTACATTGCCATCGTC  
 CAGGCAACCAAATCTTTCCGGGTACGCTCCAGAACACTGACGCACAGTAAGGTACTCTGTGTGGCAGTGT  
 GGTTCATCTCCATCATCATCTCAAGCCCTACATTTATCTTCAACAAGAAATACGAGCTGCAGGATCGTGA  
 TGTCTGTGAGCCACGGTACAGGTCTGTCTCAGAGCCCATCACGTGGAAGCTGCTGGGTATGGGACTGGAG  
 CTGTTCTTTGGGTTCTTACCCCTTTGCTGTTTATGGTGTCTGCTATCTGTTTATTCAAGACCTTGG  
 TGCAGGCCAGAACTCCAAGAGGCACAGAGCCATCCGAGTCGTATCGCTGTGGTTCCTGTTCTCCTGGC  
 TTGTCAGATCCCTCACAACATGGTCTCCTCGTACTGCGGTCAACACGGGCAAAGTGGGCCGGAGCTGC  
 AGCACCGAGAAAGTCTCGCCTACACCAGAACGTGGCCGAGGTCCTGGCTTTCCGATTGCTGCCTCA  
 ACCCCGTGTTGTATGCGTTTATTGGACAGAAATTCAGAACTACTTCATGAAGATCATGAAGGATGTGTG  
 GTGATGAGAAGGAAGAATAAGATGCCTGGCTTCTCTGTGCCCGGGTTTACTCGGAAAGCTACATCTCC  
 AGGCAGACCAGTGAGACCGTCGAAAATGATAATGCATCGTCTTTACCATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG227496 representing NM\_001190336  
Red=Cloning site Green=Tags(s)

MNSTESYFGTDDYDNTTEYSIPPDHGPCSLEEVNFTKVFVPIAYSLICVFGLLGNIMVMTFAFYKKAR  
 SMTDVYLLNMAITDILFVLTLPFWAVTHATNTWVFS DALCKLMKGTAVNFNCGMLLLACISMDRYIAIV  
 QATKSFRVRSRTLTHSKVICVAVWFISIISSPTFIFNKKYELQDRDVCPEPRYSVSEPIWKLGMGLE  
 LFFGFFTPLLFMVFCYLFIIKTLVQAQNSKRHRAIRVVI AVVLVFLACQIPHNMVLLVTAVNTGKVG RSC  
 STEKVLAYTRNVAEVLAF LHCCLNPVLYAFIGQKFRNYFMKIMKDVWCMRRKNKMPGFLCARVYSESYIS  
 RQTSETVENDNASSFTM

TRTRPLE - GFP Tag - V

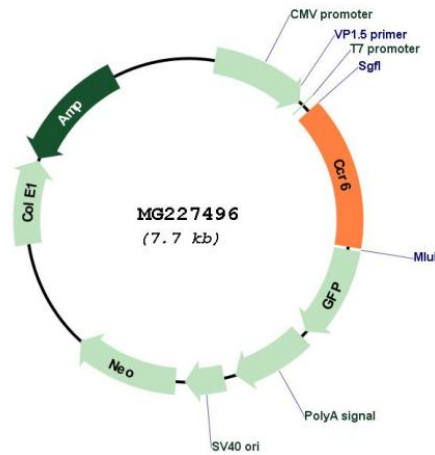
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

NM\_001190336

<b>ORF Size:</b>	1101 bp
<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<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>
<b>RefSeq:</b>	<a href="#">NM_001190336.1</a> , <a href="#">NP_001177265.1</a>
<b>RefSeq Size:</b>	1324 bp
<b>RefSeq ORF:</b>	1104 bp
<b>Locus ID:</b>	12458
<b>UniProt ID:</b>	<a href="#">O54689</a>
<b>Cytogenetics:</b>	17 A1

**Gene Summary:**

Receptor for the C-C type chemokine CCL20. Binds to CCL20 and subsequently transduces a signal by increasing the intracellular calcium ion levels (PubMed:20068036). Although CCL20 is its major ligand it can also act as a receptor for non-chemokine ligands such as beta-defensins (PubMed:25122636). Binds to defensin DEFB1 leading to increase in intracellular calcium ions and cAMP levels. Its binding to DEFB1 is essential for the function of DEFB1 in regulating sperm motility and bactericidal activity (By similarity). Binds to defensins DEFB4 and DEFB4A/B and mediates their chemotactic effects (PubMed:20068036). The ligand-receptor pair CCL20-CCR6 is responsible for the chemotaxis of dendritic cells (DC), effector/memory T-cells and B-cells and plays an important role at skin and mucosal surfaces under homeostatic and inflammatory conditions, as well as in pathology, including cancer and various autoimmune diseases. CCR6-mediated signals are essential for immune responses to microbes in the intestinal mucosa and in the modulation of inflammatory responses initiated by tissue insult and trauma (PubMed:21376174). CCR6 is essential for the recruitment of both the proinflammatory IL17 producing helper T-cells (Th17) and the regulatory T-cells (Treg) to sites of inflammation (PubMed:19050256). Required for the normal migration of Th17 cells in Peyer's patches and other related tissue sites of the intestine and plays a role in regulating effector T-cell balance and distribution in inflamed intestine (PubMed:19129757). Plays an important role in the coordination of early thymocyte precursor migration events important for normal subsequent thymocyte precursor development, but is not required for the formation of normal thymic natural regulatory T-cells (nTregs). Required for optimal differentiation of DN2 and DN3 thymocyte precursors (PubMed:24638065). Essential for B-cell localization in the subepithelial dome of Peyer's-patches and for efficient B-cell isotype switching to IgA in the Peyer's-patches (PubMed:27174992). Essential for appropriate anatomical distribution of memory B-cells in the spleen and for the secondary recall response of memory B-cells (PubMed:25505290). Positively regulates sperm motility and chemotaxis via its binding to CCL20 (PubMed:23765988).[UniProtKB/Swiss-Prot Function]