

## Product datasheet for **MC227374**

### Ackr2 (NM\_001276719) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ackr2 (NM_001276719) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ackr2
Synonyms:	Al464239; Ccbp2; CCR9; CCR10; Cmkbr9; D6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC227374 representing NM_001276719 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGCCACCGTTGCTTCCCCACTGCCTCTCACCACCGTCGGTTCCGAGAACAGCAGCTCCATCTACGACT  
ACGACTACTTAGATGATATGACCATCTTGGTTTGAGGAAGGACGAGGTCCTGTCCTTTGGAAGAGTCTT  
TCTGCCGGTCGTCTACAGCCTGATCTTCGTGCTGGGCTTGGCTGGAAACCTCCTCCTCTGGTGGTGTG  
CTCCACTCTGCACCTCGAAGACGGACGATGGAGCTTTACCTGCTGAACCTGGCCGTCTCCAACCTCTGT  
TTGTAGTGACTATGCCCTTCTGGCCATCTCTGTGGCCTGGCATTGGGTTTTTGGTAGTTTCCTGTGCAA  
GGTGATAAGCACTCTCTACTCTATTAACCTTTACTGTGGTATCTTCTTCATCACCTGCATGAGCCTGGAC  
AAATACCTGGAGATTGTCCACGCTCAGCCTCTCCACAGACCGAAGGCCAGTTTCAGGAACCTGCTTCTCA  
TTGTATGGTGTGGATCACATCCCTGGCCATCTCTGTCCAGAAATGGTCTTTGTGCAGATCCACCAGAC  
CTTAGATGGTGTGTGGCACTGCTATGCGGATTTTGGCGGACATGCGACCATTTGGAAGCTGTACCTGCGC  
TTCCAGCTGAACCTTCTGGGTTTCTCCTCCCACTCTTGCCATGATCTTCTTTACTCCCGCATCGGT  
GCGTTCGTGTGAGGCTGAGGCCGCCAGGCCAGGCCGGCTCTGAGGATGGCCGCGGCCCTGGTGATAGT  
TTTCTTCATGCTGTGGTTCCTATATAACCTCACCTTGTCTGCACTCGTTGCTGGACCTGCATGCTTT  
GGGAACGTGTGAGATCAGCCACCGTCTGGACTATACGTTGCAGGTGACAGAGAGCCTGGCCTTCTCCCACT  
GCTGCTTCACCCCGTCTCTACGCTTCTGCAGTCACCGCTTCCGCCGTACCTGAAGGCATTTCTGTC  
TGTGATGTTGAGATGGCACCAGGCACCTGGCACCCCTTCTCTAACCATTTCTGAGAGCAGCAGGGTACT  
GCCCAGGAAGACGTGGTCAGCATGAATGACCTTGGGGAGAGGCAGTCTGAGGACTCCCTTAACAAGGGGG  
AGATGGGAATACT**AG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001276719
<b>Insert Size:</b>	1137 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001276719.1, NP_001263648.1</u>
<b>RefSeq Size:</b>	3012 bp
<b>RefSeq ORF:</b>	1137 bp
<b>Locus ID:</b>	59289
<b>UniProt ID:</b>	<u>O08707</u>
<b>Cytogenetics:</b>	9 F4

**Gene Summary:**

Atypical chemokine receptor that controls chemokine levels and localization via high-affinity chemokine binding that is uncoupled from classic ligand-driven signal transduction cascades, resulting instead in chemokine sequestration, degradation, or transcytosis. Also known as interceptor (internalizing receptor) or chemokine-scavenging receptor or chemokine decoy receptor. Acts as a receptor for chemokines including CCL2, CCL3, CCL3L1, CCL4, CCL5, CCL7, CCL8, CCL11, CCL13, CCL17, CCL22, CCL23, CCL24, SCYA2/MCP-1, SCY3/MIP-1-alpha, SCYA5/RANTES and SCYA7/MCP-3. Upon active ligand stimulation, activates a beta-arrestin 1 (ARRB1)-dependent, G protein-independent signaling pathway that results in the phosphorylation of the actin-binding protein cofilin (CFL1) through a RAC1-PAK1-LIMK1 signaling pathway. Activation of this pathway results in up-regulation of ACKR2 from endosomal compartment to cell membrane, increasing its efficiency in chemokine uptake and degradation. By scavenging chemokines in tissues, on the surfaces of lymphatic vessels, and in placenta, plays an essential role in the resolution (termination) of the inflammatory response and in the regulation of adaptive immune responses. Plays a major role in the immune silencing of macrophages during the resolution of inflammation. Acts as a regulator of inflammatory leukocyte interactions with lymphatic endothelial cells (LECs) and is required for immature/mature dendritic cells discrimination by LECs.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Both variants 1 and 2 encode the same protein. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.