

Product datasheet for MC224100

Auts2 (NM_177047) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Auts2 (NM_177047) Mouse Untagged Clone
Tag: Tag Free
Symbol: Auts2
Synonyms: 2700063G02Rik; A730011F23Rik; D830032G16Rik
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224100 representing NM_177047
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGATGGCCCGACGCGGGGACATGGACTCCGGAAAAAGCGGAGGTCTCGATCACAGCGAGACCGGGAGA
 GACGCTCCCGGGCCGGGTAGGAACCGGTGCGGGGGTGTATAGGAGCCGGCCGACCCGGGCTCCCTC
 GCTGGCTTCATCGTCGGGCTCCGACAAGGAAGACAATGGAAAGCCCCATCCTCCGCCCGTCCCGGCC
 AGACCCCGCGGAGGAAGCGCAGAGAGTCCACCTCAGCCGAAGAGGACATCATTGATGGATTTGCCATGA
 CCAGCTTTGTTACTTTTGAAGCGCTGGAGAAAGATGTAGCAGTTAAGCCCGAGGAACGTGCGGAGAAACG
 ACAGACTCCCCTGACCAAGAAAAACGAGAAGCTCTTACCAATGGTTTGTCTTTTCACTCAAAGAAGAGC
 CGGCTCAGCCACTCACACCACTACAGCTCAGATCGAGAGAATGACCGCAATCTCTGCCAGCACCTTGGGA
 AGAGAAAGAAGATGCCTAAGGGACTCAGACAGCTCAAGCCAGGACAGAACAGCTGCAGGGACAGTGACAG
 CGAAAGCGCTAGCGGAGAATCCAAGGGCTTCCAGCGGAGCAGCTCTCGGGAGAGGCTCAGTGATAGTTCA
 GCTCCTTCCAGCTTGGGACAGGCTACTTCTGCGACAGTGACAGCGACCAGGAAGAGAAGGCTTCAGATG
 CTAGCTTGAAAACTTCAACTGTCTTGTAAACAAGATCCAGAGTTAGGTGTTGGCGCACTACC
 TGAACACAACCAAGATGCGGGACCAATTGTCCCAAGATCTCGGTCTAGAGAGAAGCCAGGAGAAGAGC
 CAGGACTGTTGCAAAGAGCCCGTCTTCAACCCGTGGTGTCAAAGACCCACATCCTCAGCTCCCTCAGC
 TACCATCCAGGCCAGGCCAACCTCAGTTCAGATTCCATCTCCAGGCCAGACTTGGTACCGCGCAC
 TGAAGCTCCGCCAGTTTCTCCTCCAAGTACACAGCCAGCCCAAGGACCCCAAGGCCAGCTGCAG
 CCTGCCCGCTGCCTCAGGTGCAGCAGCGGCCACCCCGGCCAGTCCCCAGCCACCTGCTCCAGCAGA
 CTCTCCGCTGTGCAGTACATCCCTCCTCCAGAGCCTCTCACAGCCACTGTCGGCTACAACAGCAG
 TAGCCTGAGCCTAACAGCTTAAGCAGCAGAAGCAGTACCCCGGCAAAAACCCAGCCCGCCCTCCTCAC
 ATCTCCACCACCGTCCGCTCTCCTTCCCTCTCCTGCCCCAACCCAGCCCTCTGCACAGCTTCA
 CACCCACCTCCAGCCCTGCCACTCACATACCCCAATATGTTGCCCCCTCCACTGCTCTGCCTCC
 TCCCCCGCGTGCAGTCTGGAAGTCTGCAGGTGCCAGGGCATCCCGCAGGGAGCACGTACTCAGAACAA
 GATATCCTGAGGCAGGAAGTGAACACGCGTTTCTGCGCTCTCAGAGTGCCGACCGAGGGGCTCCCTGG



GCCCTCCACCCTACCTGCGGACCGAGTTCCATCAGCACCAGCATCAGCACCAGCACCCATCAGCACAC
 GCACCAGCATACCTTCACACCGTTCCCCACGCCATCCCGCCACTGCCATCATGCCGACGCCAGCACCT
 CCCATGTTTGACAAATACCCACCAAAGTTGACCCATTCTACCGCATAGTCTCTTCCACTCCTATCCTC
 CTGCGGTCTCGGGTATACCCCATGATCCACCCACGGGCCCTTTCGGGTCACTCCAAGGAGCATTCCA
 GCCGAAGACATCCAACCTATCGACGTGGCTGCCGGCCTGGAACAGTCCCACATACTCTGCTCCAGAAG
 GACCCAAGGTTGACAGATCCTTTCAGACCTATGCTAAGGAAACCAGGAAAGTGGTGCGCCATGCATGTGC
 ATATCGCTGGCAGATTTATCACCATCAACAAAAGTCAAGAAACAGATGCAGTCAGACCCACACAAGT
 GGACTTTGGGCTGAAGCCTGAGTTCCTGAGCCGCTCCAGGCCCTAGTCTCTTCGGAGCCATCCATCAC
 CCCCACGATCTGGCAGCCTTCCACTTTATTCTGCGCGTGGTGTGCACATCCTACTGGGACCCTT
 TTGGGCCACCCTCATCACAGTAACTTCTCAACCCTGCCGCTCACCTAGAGCCTTTTAAACCGGCCGTC
 TACGTTACGGGCTCGCTGCAGTTGGTGGCAATGCCTTCGGGGACTTGGAAACCCTTCAGTTACACCC
 AACTCAGTGTTCGGCCACAAGGATAGCCCCAGTGTGCAGAACTTAGCAATCCTCACGAACCCTGGAACC
 GGCTGCACCGAACGCTCCGTCGTTCCCGACCCCTCCGCCCTGGTGAAGCCAGGGGAATTGGAGCGCAG
 TCGTCCGCTGCAGCCATGACAGAGATAGAGATGTAGATAAACGAGACTCCTCCGTTAGTAAAGATGAC
 AAGGAAAGGAAAGCGTTGAGAAAAGACACCCAGCCATCCTTCCCAGCACCTCCGTCGCCGTGAGCG
 CCTGGGCCATAACCGCAGCTCCACCGATCCGACGACCAGGGGTCAATTTGAATACTGAGGCTCGTGAGAA
 AGATAAACCAAAAGAGAAGGAGAGAGACCACTCGGGATCCCGAAAGGACCTGACCACCGAAGAGCAGAAA
 GCCAAGGAAAGCCATCTGCCGAGAGAGATGGGCACAGCCACGAGGGACGTGCAGCAGGCCAGGAACCCA
 AGCAGCTGTCCCGGTGCCATCGCCCTACGTGAGGACACCAGGCGTGGATAGCACCAGGCCAAGCAGCAC
 CTCTAGTCGGGAAGCCGACCCACGAAGGTTGAGCCGGCTACGAGAACCCCAAGAAGAAGCCGAGGTC
 AAGGTCAAAGAGGAACGAAGGAAGATCACGACCTACTACTGAGGCCCCACAGGCCACAGGACCTCAG
 AGGCACCTCCGCCAGCTCCTCAGCCAGTGCAGCGTGCACCCAGGGCCTCTGGCATCCATGCCCATGAC
 CGTGGAGTGACTGGCATCCATGCCATGAACAGTATCGGTAGTCTGGACAGGACACGTATGGTGACCCCA
 TTTATGGCCTCAGTCCGATCCCAGGAGAGAGGTTTCCCATACCCCTTTTCCACTGGGACCCTATGC
 GGGACCCCTTGAGGGATCCTTACCGTGACTTGGACATGCACCGAAGAGACCCCTCTGGGCAGGACTTTCT
 GCTCAGGAATGACCCCTGCACCGGCTCTCCACACCCCGTTGTATGAAGCCGACCGATCGTTCGGGAC
 AGGGAGCCTCATGATTACAGCCACCACCACCACCACCATCACCCGCTGGCCGTGGACCCCTCGACGGG
 AGCACGAACGAGGAGGACACCTGGATGAACGCGAGCGGCTGCACGTGCTTCGGGAGGACTATGAGCACCC
 GCGGTTGCACCCGTGCACCCCGCTTCTCTAGATGGACACCTCCCACACCCGAGCCTGCTCACACCAGGC
 CTGCTAGTATGCACTACCTCGCATCAGCCCTACTGCGGGCCACCAGAATGGACTGCTTAAACAAGACCC
 CGCCCACTGCGGGCTTAGCGCCACCTCCGCTCATCTCCACATTGGGGGGCCGCCGGGATCCCCCG
 GAGGACTACGCTCTGTGGCTGAAATCCGAGAGAGGCCACCGTCCCACACACTGAAGGACATTGAAGCT
 CCGTAA

ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA
 TTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-NotI
ACCN: NM_177047
Insert Size: 3786 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>
Components:	<p>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).</p>
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:	<p>NM_177047.3, NP_796021.2</p>
RefSeq Size:	<p>6060 bp</p>
RefSeq ORF:	<p>3786 bp</p>
Locus ID:	<p>319974</p>
UniProt ID:	<p>A0A087WPF7</p>
Cytogenetics:	<p>5 G2</p>
Gene Summary:	<p>Component of a Polycomb group (PcG) multiprotein PRC1-like complex, a complex class required to maintain the transcriptionally repressive state of many genes, including Hox genes, throughout development. PcG PRC1 complex acts via chromatin remodeling and modification of histones; it mediates monoubiquitination of histone H2A 'Lys-119', rendering chromatin heritably changed in its expressibility. The PRC1-like complex that contains PCGF5, RNF2, CSNK2B, RYBP and AUTS2 has decreased histone H2A ubiquitination activity, due to the phosphorylation of RNF2 by CSNK2B. As a consequence, the complex mediates transcriptional activation (By similarity). In the cytoplasm, plays a role in axon and dendrite elongation and in neuronal migration during embryonic brain development. Promotes reorganization of the actin cytoskeleton, lamellipodia formation and neurite elongation via its interaction with RAC guanine nucleotide exchange factors, which then leads to the activation of RAC1 (PubMed:25533347).[UniProtKB/Swiss-Prot Function]</p>