

Product datasheet for **MC220088**

Arhgef7 (NM_017402) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef7 (NM_017402) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Arhgef7
Synonyms:	betaPix; betaPix-b; betaPix-c; Cool; cool-1; mKIAA0142; p85Cool1; p85SPR; Pak3bp; PIX
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC220088 representing NM_017402
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTGATAACACCAACAGCCAAGTGTAGTACGAGCCAAGTTAACTCCAGCAGACCAATGAAGATG
AACTCTCCTTCTCAAAGGGTGTATCATCCATGTACACGAGTGGAGGAAGGAGGCTGGTGGGAGGGCAC
ACACAATGGCAGGACCGGCTGGTCCCAAGCAACTACGTTTCGAGAGATCAAGCCAAGTGAGAAGCCCGTG
TCACCCAAATCAGGGACCTTGAAGAGCCCTCCAAAGGGTTCGATACGACTGCCATCAACAAGAGCTATT
ACAACGTGGTGTACAGAACATCCTGAAACAGAGCATGAGTATCCAAGGAGCTGCAGTCTGTGCTGTC
CACCTACCTGCGGCCACTGCAGACCAGTACAAGTTGAGTTCAGCAAACACTTCATATTTAATGGGAAAT
CTAGAGGAAATATCTTCCTCCAGCAAGTGTGTACAGTCCCTAGAAGAATGCACGAAGTCTCCTGAAG
CCCAACAGAGAGTTGGTGGCTGCTTCTGAGCCTGATGCCGAGATGAGGACCCTGTACCTCGCTTACTG
TGCCAACCAACCCATCTGCTGTGAGCGTCTCACAGAGCACAGTGAAGGACCTAGGAGAGTTTATGAAACA
AAAGGTGCCAGCAGCCCTGGGATCCTGGTGTGACCACCGGCCTGAGCAAGCCCTTCATGCGCCTGGACA
AGTACCCACACTGCTAAAGGAGCTGGAGAGACACATGGAGGATTATCATCCTGATAGACAAGATATTCA
GAAGTCTATGACGGCCTTCAAAAACCTTTCAGCTCAGTGTCAAGAAGTTCGCAAGAGGAAGGAGCTGGAG
CTGCAGATCCTGACGGAGCCATCAGGAGCTGGGAGGGGGATGACATAAAGACCTTGGCAGTGTACAT
ACATGTCCAAGTCAACATTCAGTGTGCGGGAAGCAGGAGAAGAATGAGAGATACCTCCTGCTCTTCCC
AAACCTTCTGCTCATGTTGTCTGCAAGTCCCAGGATGAGTGGTTTCATCTATCAGGGGAAGCTGCCAACA
ACAGGAATGACAATCACAAAGCTTGAGGACAGTGAACCACATAGGAATGCATTTGAGATATCAGGGAGCA
TGATCGAGCGGATTCTGGTGTCTGCACCAGCCAGGACTTACACGAGTGGTGGAAACACCTGCAGAA
GCAGACGAAGGTCACATCTGTGAGCAACCCACCATCAAACCCACTCGGTGCCATCACACACACTTCT
TCCCATCTCTCACTCCATCCAGCAAACACGCGGACAGCAAGCCCGTGGCACTGACGCCTGCGTACCACA
CACTCCCCACCCCTCTCACCATGGCACCCACACACCACATCAGCTGGGGACCCTGGAGCCTCCGAA
GACCCCAAGCCTTGGAGCCTGAGTTGCCTGCGGCCTGCACCTCCCCTCCGGCCCTCAGTGTCTCTGCT
TACAAGGAGGATCTCAGTAAGAGCCCAAGACCATGAAAAGCTGCTGCCGAAGCGCAAGCCCGAGCGGA
AGCCTTCGGACGAGGAGTTCGCTGTGCGCAAGAGCACAGCGCGCTGGAAGAAGACGCTCAGATCCTGAA
GGTTATCGAAGCTTATTGCACAAGTCAAAGACGCGCCAGACCCTGAACTCAAGTTCACGCAAAGAATCT
GCTCCACAAGTGTGCTTCCAGAAGAAGAAAAATTATAGTCAAGAAACCAAGCAATGGGCAGACAG
TGATAGAGGAAAAGACCTCGTGGATACGGTGTATGCGTTAAAGGATGAAGTCCAGGAGTTAAGACAGGA
TAACAAGAAGATGAAGAAGTCTTAGAGGAGGAACAGAGGGCCCGCAAGGACTTAGAGAAGCTGGTGAAG
AAGTTCTAAAGAATATGAACGACCCTGCCTGGGATGAGACCAATCTA**TAG**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_017402
Insert Size: 1941 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 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](#)

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_017402.4](#), [NP_059098.2](#)

RefSeq Size: 4488 bp

RefSeq ORF: 1941 bp

Locus ID: 54126

UniProt ID: [Q9ES28](#)

Cytogenetics: 8 A1.1

Gene Summary: Acts as a RAC1 guanine nucleotide exchange factor (GEF) and can induce membrane ruffling. May function as a positive regulator of apoptosis. Functions in cell migration, attachment and cell spreading. Promotes targeting of RAC1 to focal adhesions. Downstream of NMDA receptors and CaMKK-CaMK1 signaling cascade, promotes the formation of spines and synapses in hippocampal neurons (By similarity).[UniProtKB/Swiss-Prot Function]
 Transcript Variant: This variant (3) differs in the 5' UTR and contains multiple coding differences including translation initiation at a downstream start codon, compared to variant 1. The resulting isoform (c) is shorter than isoform a.