

Product datasheet for **MR223397**

Arhgef7 (NM_017402) Mouse Tagged ORF Clone

Product data:

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



[View online »](#)

ORF Nucleotide Sequence:

>MR223397 representing NM_017402
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACTGATAACACCAACAGCCAACTGGTAGTACGAGCCAAGTTAACTCCAGCAGACCAATGAAGATG
 AACTCTCCTTCTCAAAGGGTGATGTCATCCATGTCACACGAGTGGAGGAAGGAGGCTGGTGGGAGGGCAC
 ACACAATGGCAGGACCGGCTGGTCCCCAGCAACTACGTTTCGAGAGATCAAGCCAAGTGAGAAGCCCGTG
 TCACCCAAATCAGGGACCTTGAAGAGCCCTCCCAAAGGGTTCGATACGACTGCCATCAACAAGAGCTATT
 ACAACGTGGTGCTACAGAACATCCTGAAACAGAGCATGAGTATTCGAAGGAGCTGCAGTCTGTGCTGTC
 CACCTACCTGCGGCCACTGCAGACCAGTGACAAGTTGAGTTCAGCAAACACTTCATATTTAATGGGAAAT
 CTAGAGGAAATATCTTCCTCCAGCAAGTGCTGTACAGTCCCTAGAAGAATGCACGAAGTCTCCTGAAG
 CCCAACAGAGAGTTGGTGGCTGCTTCTGAGCCTGATGCCGAGATGAGGACCCTGTACCTCGCTTACTG
 TGCCAACCACCCATCTGCTGTGAGCGTCTCACAGAGCACAGTGAGGACCTAGGAGAGTTTATGAAACA
 AAAGGTGCCAGCAGCCCTGGGATCCTGGTGTGACCACCGGCCTGAGCAAGCCCTTCATGCGCCTGGACA
 AGTACCCACACTGCTAAAGGAGCTGGAGAGACACATGGAGGATTATCATCCTGATAGACAAGATATTCA
 GAAGTCTATGACGGCCTTCAAAAACCTTTCAGCTCAGTGTCAAGAAGTTCGCAAGAGGAAGGAGCTGGAG
 CTGCAGATCCTGACGGAGCCATCAGGAGCTGGGAGGGGGATGACATAAAGACCTGGGCAGTGTACAT
 ACATGTCCAAGTCAACATTCAGTGTGCGGGAAGCGAGGAGAAGAATGAGAGATACCTCCTGCTCTTCCC
 AAACCTTCTGCTCATGTTGTCTGCAAGTCCCAGGATGAGTGGTTTCATCTATCAGGGGAAGCTGCCAACA
 ACAGGAATGACAATCACAAAGCTTGAGGACAGTGAAAACCATAGGAATGCATTTGAGATATCAGGGAGCA
 TGATCGAGCGGATTCTGGTGCCTGCACCAGCCAGCAGGACTTACACGAGTGGTGGAACACCTGCAGAA
 GCAGACGAAGGTCACATCTGTGAGCAACCCACCATCAAACCCCACTCGGTGCCATCACACACACTTCTT
 TCCCATCCTCTCACTCCATCCAGCAAACACGCGGACAGCAAGCCCGTGGCACTGACGCCTGCGTACCACA
 CACTCCCCACCCCTCTCACCATGGCACCCACACACCACCATCAGCTGGGGACCCCTGGAGCCTCCGAA
 GACCCCAAGCCTTGGAGCCTGAGTTGCCTGCGGCCTGCACCTCCCCTCCGGCCCTCAGTGTCTCTGTC
 TACAAGGAGGATCTCAGTAAGAGCCCAAGACCATGAAAAGCTGCTGCCGAAGCGCAAGCCCGAGCGGA
 AGCCTTCGGACGAGGAGTTGCTGTGCGCAAGAGCACAGCGCGCTGGAAGAAGACGCTCAGATCCTGAA
 GGTATCGAAGCTTATTGCACAAGTGCAAAGACGCGCCAGACCCTGAACTCAAGTTCACGCAAAGAATCT
 GCTCCACAAGTGTGCTTCCAGAAGAAGAAAAATTATAGTCGAAGAAACCAAGCAATGGGCAGACAG
 TGATAGAGGAAAAGACCTCGTGGATACGGTGTATGCGTTAAAGGATGAAGTCCAGGAGTTAAGACAGGA
 TAACAAGAAGATGAAGAAGTCTTAGAGGAGGAACAGAGGGCCCGCAAGGACTTAGAGAAGCTGGTGGAG
 AAGTTCTAAGAATATGAACGACCCTGCCTGGGATGAGACCAATCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR223397 representing NM_017402
Red=Cloning site Green=Tags(s)

MTDNTNSQLVVRAKFNFQQTNEDELSFSKGDVIHVTRVEEGGWEGTHNGRTGWFPSNYVREIKPSEKPV
 SPKSGTLKSPKGFDTTAINKSYYNVVLQNILETEHEYSKELQSVLSTYLRLQTSKLSANTSYLMGN
 LEEISSFQQVLVQSLEECTKSPEAQQRVGGCFLSLMPQMRTLAYCANHPSAVSVLTHESEDLGEFMET
 KGASSPGILVLTGLSKPFMRDLKYPTLLKELERHMEDYHPDRQDIQKSMTAFKNLSAQCCQEVRRKKELE
 LQILTEPIRSWEGDDIKTLGSVTYMSQVTIQCAGSEEKNERYLLLPNLLMLLSASPRMSGFIYQGLPT
 TGMTITKLEDSENHRNAFEISGSMIERILVSCTSQQDLHEWVEHLQKQTKVTSVSNPTIKPHSVPSHTLP
 SHPLTPSSKHADSKPVALTPAYHTLPHPSHHGTPHTTISWGLEPPKTPKPWSLSCLRPAPPLRPSAALC
 YKEDLSKSPKTMKLLPKRKPERKPSDEEFAVRKSTAAL EEDAQILKVEAYCTSAKTRQTLNSSSRKES
 APQVLLPEEEKIIVEETKSNQTVIEEKSLVDTVYALKDEVQELRQDNKKMKKSL EEEQRARKDLEKLV
 KVLKNMNDPAWDETNL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9036_d10.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_017402

ORF Size: 1938 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](#)

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_017402.5](#)

RefSeq Size: 4488 bp

RefSeq ORF: 1941 bp

Locus ID: 54126

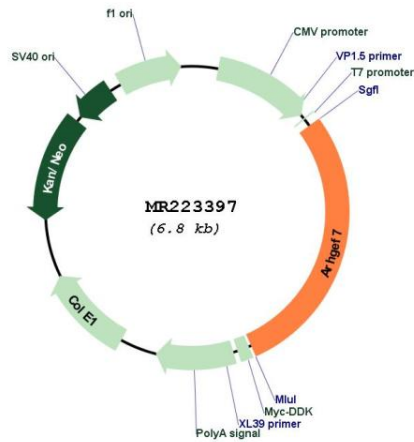
UniProt ID: [Q9ES28](#)

Cytogenetics: 8 A1.1

MW: 73.5 kDa

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]

Product images:



Circular map for MR223397