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Product datasheet for MR224123

Arhgef7 (NM_001113517) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef7 (NM_001113517) 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)

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ORF Nucleotide Sequence:

>MR224123 representing NM_001113517
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATTCTGCCGAGCAGACCGTTACGTGGCTCATCACCCTGGGCGTGCTGGAGTCGCCCAAGAAAACCA
TCTCGGACCCTGAGGTCTTCTTGCAGGCGTCGCTCAAGGACGGGGTGGTCCTATGCCGGCTGCTGGAGCG
CCTGCTGCCCGGGACCATCGAGAAAGTCTACCCGGAGCCGCGGAACGAGAGCGAGTGCCTGAGCAACATC
CGCGAGTTCCTGCGCGCCTGCGGGGCGTCCCTGCGCCTAGAGACTTTTGATGCAAATGATTTGTATCAGG
GGCAGAACTTTAACAAGGTCCTCAGCTCCTTGGTGACACTAAATAAAGTGACAGCAGACATTGGACTAGG
AAGTGATTCTGTGTGTGCTCGGCCTTCGTCCCATCGGATAAAGTCTTTTGATTCCCTGGGATCCCAGTCT
TCACACAGTAGGACTTCAAAATTGCTTCAGAGCCAGTACCGAAGCTTGGACATGACTGATAACACCAACA
GCCAACTGGTAGTACGAGCCAAGTTTAACTTCCAGCAGACCAATGAAGATGAACTCTCCTTCTCAAAGGG
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GGATCCTGGTGCTGACCACCGGCCTGAGCAAGCCCTTCATGCGCCTGGACAAGTACCCCACACTGCTAAA
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TCAGTGTGCGGGAAGCGAGGAGAAGAATGAGAGATACCTCCTGCTCTTCCCAAACCTTCTGCTCATGTTG
TCTGCAAGTCCCAGGATGAGTGGTTTCATCTATCAGGGGAAGCTGCCAACAACAGGAATGACAATCACAA
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GTCCTGCACCAGCCAGCAGGACTTACACGAGTGGGTGGAACACCTGCAGAAGCAGACGAAGGTCACATCT
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CCATGGCACCCCACACACCACCATCAGCTGGGGACCCCTGGAGCCTCCGAAGACCCCCAAGCCTTGGAGC
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AGACCTCTCGGAAGACTCTGAGTATGACAGTATATGGACAGCCCATAGTTACAGAATGGGTTCTGCATCC
CGTAAGAGCTGCTGCTCATATATCTCTCACCAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

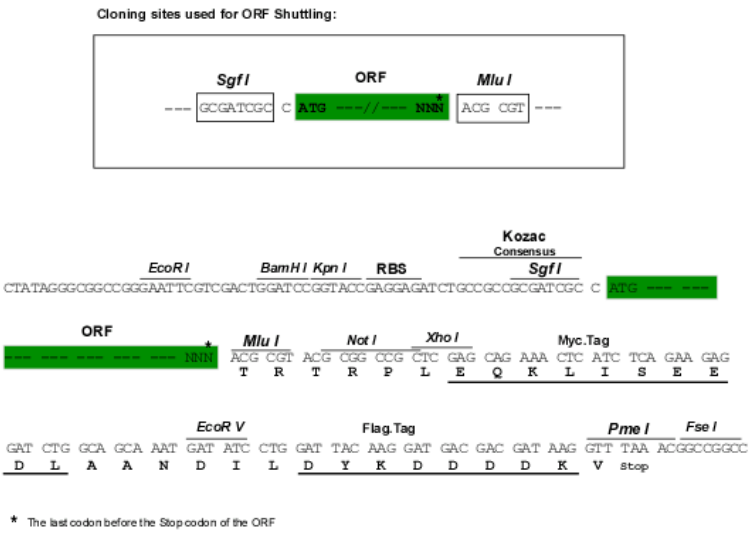
>MR224123 representing NM_001113517
Red=Cloning site Green=Tags(s)

MNSAEQTVTWLITLGVLESPKKTISDPEVFLQASLKDGVVLCRLLERLLPGTIEKVYPEPRNESECLSNI
REFLRACGASLRLETFDANDLYQGQNFNKVLSSLVTLNKVTADIGLGSDSVCARPSSHRIKSFDSLGSQS
SHSRTSKLLQSQYRSLDMTDNTNSQLVVRAKFNFQQTNEDELSFSKGDVIHVTRVEEGGWWEGTHNGRTG
WFPSNYVREIKPSEKPVSPKSGTLKSPPKGFDTTAINKSYYNVVLQNILETEHEYSKELQSVLSTYLRPL
QTSDKLSSANTSYLMGNLEEISSFQQVLVQSLEECTKSPEAQQRVGGCFLSLMPQMRTLYLAYCANHPSA
VSVLTEHSEDLGEFMETKGASSPGILVLTTGLSKPFMRLDKYPTLLKELERHMEDYHPDRQDIQKSMTAF
KNLSAQCQEVRKRKELELQILTEPIRSWEGDDIKTLGSVTYMSQVTIQCAGSEEKNERYLLLFPNLLLML
SASPRMSGFIYQGKLPTTGMTITKLEDSENHRNAFEISGSMIERILVSCTSQQDLHEWVEHLQKQTKVTS
VSNPTIKPHSVPSHTLPSHPLTPSSKHADSKPVALTPAYHTLPHPSHHGTPHTTISWGPLEPPKTPKPWS
LSCLRPAPPLRPSAALCYKEDLSKSPKTMKKLLPKRKPERKPSDEEFAVRKSTAALEEDAQILKVIEAYC
TSAKTRQTLNSTWQGTDLMHNHVLADDDQSSLDSLGRRSSLSRLEPSDLSEDSEYDSIWTAHSYRMGSAS
RKSCCSYISHQN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

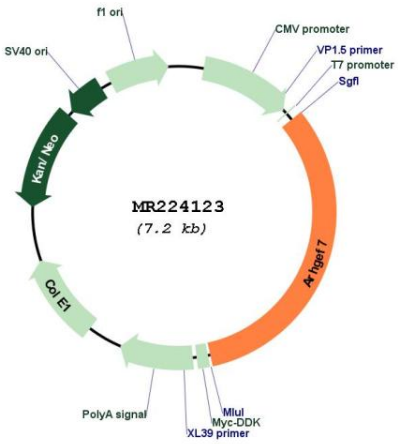


ACCN: NM_001113517

ORF Size: 2346 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_001113517.2
RefSeq Size:	4946 bp
RefSeq ORF:	2349 bp
Locus ID:	54126
UniProt ID:	Q9ES28
Cytogenetics:	8 A1.1
MW:	88.1 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 MR224123