

Product datasheet for MC224710

Arhgef5 (NM_133674) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgef5 (NM_133674) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Arhgef5
Synonyms:	2210412D05Rik; AA717842; AW495314; Tim1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224710 representing NM_133674 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAGGCTGAGGAGCCTGAATATGGAGTATCTACAGAAGTCCCTGACATAGAAGAATTGAAAATATCC
CTGAAGGTATCATGAGGAGCAGTCAGATCCCTGCCTTGGATCCTGAAGCTCAAGAAGACCGAGACCCATC
CTATAAGTGGACAGATGGACACAGACCCGTGATGAACCAGTCAAAGTGTTAAGGGACATGGGTGACCAT
ACACCTAATAGTATGGCAATTTCTTCAAGAAAGAATCTTCGGATATGGAGACAAGCCAGGAAATCCTTC
TGCTGAGGCCTGTAACACTCCAGACCAGCAGGAAGCTGTAATCCAGAGCCTTAAAGACAGACTGTCAAG
AACATAGCTGCCCTGAGCTCTTGGCATGTGCTGTCCAGGAAGAATGGCTAGACATACCCAGCAAACCTA
GACAACAGAGTGGGGCAGAATTGCAGTCAGAACTTATGTCTTTGACTTTGGCAGTTAGCAAAGAGAAAAG
AAGAGGAAGAACTCCCCAGACACCTCAATCCCTAGAGGATCTTGGCCTCCCTGCAAACCTCACCTGG
TGAGACTGAGCAGACCCAGGGCAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
ACACAAGAAAATCAAGGGCAAGAAGGCTTCCTTCAATCTCAGGAAGCCAGGGACTGGAGGACAGGAGG
GACAGGAAGTAGAAATTCAGGAGGAAGGAAGTCTGAACGAAGGCATTTGTTTTGGTGGGCTCCTGGGATA
GCAGGAGGAGGTGAAGAGGGGTTTAAACGCAACGAGGAAGAAGCAGAAGCAGGGACAGATCCAAAGCTAT
ATGCTACTTGGAGACAATGGGAAAATGAGGGGCTCAGTGGGAATTAGAAGGTCTGAATTACAGTGAGA
GAGGCCAAGAGAAGAGGAAAGGAGGTTTGGGTTCTGAGAGATTGAGAGAGGAGGACAGGACCAGGA
ATCCAGGGAGGTGAAGAGAGAAGGAGTCCACTCAGTATACAGAGAATCAAAGTTAGTAGAGAAATCA
GAGATTGTAAGAGAAAGCAGAGAGATCATGATCAAACAGGAAAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
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CAGACCAGGAGAGACAGCAAGCCTTCTTCCAGTGGCTCCGTAGATCCTGAGGTTCTCTCCCCAGGT
ACATTGTTCCAGGTATTTCTTCTCTGTGGCTGATATCCACAGATTGAGAAGGAGCCTGTGTGTGAGG
AACTGAGCCCTCAAGCTCCTGCACTGGAGCCAACAGAATGGTCTACCAACCCATTTCTCCCCCTGCCTC
TTTTGCTCCTGAAGAATCTCTTGATAATAGGACTCACAACAGCCAGCAAGAAGAATTCAGGCTAAGGAAG
GGGATTGAGGTTGTCTCTGCTAGTACATCTGTGGCTCCTCAGGGACACGAGATTCACCTCTTTGAGTC



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CTCTAATGTTTTCTCCAGCACTGCCACCTTGTCACCTGTTAGCTCTTCAGTTATCCTTCCTGAGGAGAC
 CCCAACAGCCTCTGCCTCAGCTGACACTCCACATCATTGTGGCCATGTGAGACTCCTCCACTACCCGCA
 AAATCCTCCAGGTACCCATGTGCCACCTCTGACACAGCCAACCTCACAGCCCTCTTAGCAGCTACACTG
 GAGTTACCCAACATCTAAGAAGCAACTCGTTCACAGGCTCTCACAGGACAGAGCAGACTCCAGACTCTCT
 GGGAAATGCACCTCTTTCTCTCATTGGAAATACCTCAGAGGCCCTCTAAACCAGCCATCTATGGCTCT
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 ATGGGGCTCCCCACAGAACTCAGCCTTTGCCATAGGCTCTCCTGCAAATGTTTCTTACCACCCACTGTC
 TCCATGGATATGACGATACGTGAAGCTTACTCCCTATCCCCCAGAGAAGAGACATAGCTACAGTCACA
 TAGTGGAGAGGGATGGCCTTCTTCATGAAGTAGCCTCTACACTGAAGCGGCATAGTCATCCTCCTCCACT
 GACCCTAAGTTCAGGGCTCCATAGATCTTCTAAAGGCTCATTTTCCCTAGTTCCTGACTCCACTGTGGCA
 AGGCAGCACCGCCTCTGCCGTACCCCGAAGGCCCAACCATACACAGACTCCATCCCTCCAGAC
 TGAGATAACAACAAACCATTACCCCAACTCCTGATATGCCTGAGTCTACCATCCCTCCATCTCTCCTC
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 TTGCCCCAAAGTCCAGGGGAGAAAGCAAGAGTATCCAGGGAGGATTTACATTAGGAGGTCAAGCCA
 AGCCAAGACCTAATAATCAAGACTGGACAGCTTACTCTCTGTTGGACGAACCTCCTGGCCTCCAGC
 CACAGGCAGATCAACAGAATCTTTCCTCTCACCAGTAGGTGTAATAATGAAGTGTCCCCTGGCCTGGCT
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 CTACCACTAAGGATGAGTCAGGGCTCACTGAAGAGTCTGAGCCACCAGTGAGAGGATCATTTAGACGATC
 TGCCCCCTCAGGAGGAATTAATAATAACAAGGAGGTGAGCTTTAGGATCAAGAAAGAACTCAGAAAAACC
 CTCCACCACCAACTGGAGAAGGCATCCAGCTGGCTCACAGACCGGACCCAGCAAGGACATCAGAAAGTA
 GCAGTGAACAGGTTGTTCTGGCCAGGTACCCAACAAGCAAAGGGCTGGAACCGGCAAGGCTTCGTAG
 ACCTTCAATTTGCTGAAAGCTCTTCAGATTTACGAAATCCAGCTGCGGGAAGACTTCTGGCTCTTCA
 GATTCGTGTTGTTTTCCGGGAGAAGAAACCAAGGAGGGGATGGGAGGCTTTTCAAGACGTTGCTCCAAGC
 TCATCTCCTCCAGCTACTTTATCAGGAGTACAGTGTGTTGTTCTGAACAAGGAGATTCAGAGCCAGCA
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 TCAGACTCCTACCTACAGCGCCTCTCTATGGCCTCCAGTGGCTCCCTCTGGCAGGAAATCCCTGTGGTGC
 GCAATAGCACAGTGTCTCTCCATGACCCATGAAGATCAAAAAGTGAAGAGGCCAAGTTTGGCTGAT
 TGTGTGAGAAGCATCTTACCTGCGCAGTCTAAACATAGCTGTGGATCATTTCCAACATTCAGCCAGCTG
 CGGGCCACCTGTCCAACCAGGATCATCAGTGGCTCTTCTCTCGTTTGCAGGATGTACGAGATGTCAGCA
 CCAGTTCCTTTAGACTAGAAGAAAAGTCTTGAACAACATCTTCTCCTTCCAAGTGTGTGATGTTGT
 CTTGAATCATGCCGAGACTTCCACCGTGTCTACCTGCCTTATGTCACCAACCAGACCTATCAGGAACGC
 ACCTTCCAAGTCTAATGAATAGCAACAGCAGTTTCCGGGAGGTCTTGGAGAAGCTAGAGAGCGACCCCA
 TCTGCCAACGCCTGTCTCTCAAGTCTTTCTGATACTGCCCTTCCAACGCATCACACGTCTCAAGTGTCT
 GCTCCAGAACAATACTGAAGAGAAGTCAAGCTGGCTCCTCAGAAGAGGCAGAGGCCACGAAGGCACACCAT
 GCCCTAGAGAAGCTGATTCGAGACTGCAACAGCAATGTGCAGAGAATGCGGCGGACAGAGGAGCTCATCT
 ACCTGAGCCAGAAGATTGAGTTTGTGAGTCAAAAATTTCCACTTATTTCACAATCTCGATGGCTGGTGAA
 GAGTGGGAGCTGACGGCCCTTGTGAGTTCAGTGTCTCCCCAGGGCTGAGAAGGAAACTGACCACTCGTCCA
 GTCCACCTACATCTTCAATGACTGTCTGTTGCTGTCTCGGCCCGAGAGGGCAGCCGTTTCTGGTAT
 TTGACCATGCTCCGTTCTCCTCCATCCGAGGGGAGAAAGTGTGAAATGAAGCTTCATGGACCTCACAAAA
 CCTCTTCCGTCTCTTTCTCCTGCACAACGCACAGGGCACCCAAGTGAATTCCTTCTCCGCACTGAGACT
 CAAAGTGAAGGCTTCGCTGGATCTCAGCCTTGGCCATGCCAGAGAGGAGTTGGACCTCCTTGTGTT
 ATGACTCCCCACAAGTTCAGTGCCTCCGTGCCTACAAGCCTCGAGAGAATGATGAGTTGGCACTAGAGAA
 GGCGGATGTGGTGTGTTCACTCAGCAAAGCAGTGTGGTGGCTGGAGGGTGAAGACTCTCAGATGGT
 GAGCAAGGCTGGTTTCTGTCCAGCAGGTAGAGTTTCAATTCAAACCCAGAGGTCCGTGCTCAGAACCTCA
 AGGAAGCCATCGAGTCAAGACGGCCAACTGCAGCTGGTGAACAGCAAGCTAA

ACGCGTACGCGGCCGCTCGAGCAGAAAAGTCACTCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_133674

Insert Size:	4746 bp
OTI Disclaimer:	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).
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:	<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:	<u>NM_133674.1</u> , <u>NP_598435.1</u>
RefSeq Size:	5420 bp
RefSeq ORF:	4746 bp
Locus ID:	54324
UniProt ID:	<u>E9Q7D5</u>
Cytogenetics:	6 B2.1
Gene Summary:	Guanine nucleotide exchange factor which activates Rho GTPases (PubMed:19713215, PubMed:21525037). Strongly activates RHOA (PubMed:19713215, PubMed:21525037). Also strongly activates RHOB, weakly activates RHOC and RHOG and shows no effect on RHOD, RHOV, RHOQ or RAC1 (PubMed:19713215). Involved in regulation of cell shape and actin cytoskeletal organization (PubMed:21525037). Plays a role in actin organization by generating a loss of actin stress fibers and the formation of membrane ruffles and filopodia (By similarity). Required for SRC-induced podosome formation (PubMed:21525037). Involved in positive regulation of immature dendritic cell migration (PubMed:19713215). [UniProtKB/Swiss-Prot Function]