

Product datasheet for **MC221458**

Arhgap44 (NM_175003) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgap44 (NM_175003) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Arhgap44
Synonyms:	6330543G20; AI840762; AU040829; AW493732; Rich2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221458 representing NM_175003
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAGAAGCAGTTTAAACCGCATGCGCCAGTTGGCCAACACAGCGGTGGGCAGGGCAGAAAAAGACTGAAG
 TTCTGAGCGAAGACCTTCTCCAGGTGGAGAAGCGCCTAGAGCTGGTGAAGCAGGTGTCCACAGCACACA
 CAAGAAGCTCACCGCATGTCTGCAGGGTCAAGCAGGGAGCAGAGGCCGACAAGCGATCAAAAAAGTTGCC
 CTGACGACTCTGGCGCAGTGCTTGGTGGAGGGTCCGCGATCCTGGGCGATGACACGCTTCTTGGGAAGA
 TGCTGAAGCTCTGCGGAGAGACGGAGGACAAGCTAGCTCAGGAGCTGATCCACTTTGAGCTGCAAGTGGA
 GAGGGATGTGATCGAGCCCTGTTCTGCTCGCTGAGGTGAAATTCCAATATTCAAAAGCAGAGGAAA
 CATTTAGCCAAGCTGGTCTTGACATGGACTCTCCCGGACCAGGTGGCAGCAGACTTCAAAGTCTTCAG
 GGCTTTCCAGCAGCCTTCAAGCTGCGGGTGCCAAAGCCGATGCCCTCAGGGAGGAGATGGAGGAGGCTGC
 CAACAGAGTGGAGATTTGCCGGGACCAGCTTTCTGCTGACATGTACAGTTTTGTGGCCAAAGAAATTGAC
 TATGCAAACACTTTCAAACGCTAATAGAAGTGCAAGCTGAGTACCACAGGAAGTCGCTGACACTGCTGC
 AGGCTGTGTTGCCTCAGATCAAAGCCCAGCAGGAGGCCTGGGTGGAGAAGCCTTCCTTTGGGAAGCCCT
 GGAGGAGCACCTGATGATCAGTGGCCGAGAGATCGCCTTCCTATCGAGGCGTGTGTGACCATGCTGCTG
 GAGTGTGGGATGCAGGAGGAGGGCCTTCCGGGTAGCCCCCTCAGCCTCCAAGCTGAAGAAGCTGAAAAG
 CTGCTCTGGACTGCTGTGTGGTGGATGTCCAGGAGTACTCGGCTGACCCCCACGCCATAGCAGGGGCTTT
 GAAGTCTTATCTCCGAGAGTTGCCAGAGCCTCTTATGACCTTTGAACTCTATGACGAATGGATCCAGGCT
 TCTAATATCCAGGAGCAAGACAAGAGACTTCAGGCTCTCTGGAATGCTTGTGAGAAGTTGCCAAAGGCCA
 ACCATAACAACATCAAATACTTGATCAAATTTTTATCGAAACTGTCTGAATATCAGGATGTAACAAGAT
 GACTCCCAGTAACATGGCAATTGCTGCGGACCAATCTCCTTTGGCCACAGTCAGAGGGGAACATCACC
 GAGATGATGACCACAGTTTCCCTGCAGATCGTTGGCATCATCGAGCCATTATCCAGCACCGAGACTGGT
 TCTTCCCTGGAGAGATAGAGTTCAACCTCACAGGCAGTACGGGAGTCCAGTCCACGTGAACCACAATGC
 CAACTACAGCTCAATGCCCTCCCAGACATGGACCCTGCTGACCGGCCAGCCAGAGCAGGCCCCGCCGG
 CCCCTCAGTGTGGCCACAGACAACATGATGCTGGAGTTTTACAAGAAGGATGGCATGGGTGTGAGGGTCA
 TGGACACATCTTGGGTGGCAGGAAGAGGCTCCTCTGCTGGTGGAAAGCATCCTGCGCCCCGCTTCCAT
 GCAGCCTCCTGCCCCACCCTCCGAGCTGGCTGCACCCTTGCTTACCCCTGCCGAGCAGGTCCCAGAC
 AGCCCTGCCACTCCAGCTCCTGCGCTCTCTCCATCAGGTGCCAGCCTGCAGCCCACCCCGAGCGCCCCA
 GTGTGTCTAAAAGCAAGGAAGTGTGCGCCAGGGTCTGGGCAGAAAGGAAGTCCAGGTTCCATCCAGGGGAC
 ACCCTGCCAGGGACGCAACTGGGGCCACAGCCGGCTGCCAGCCCCAGCCAGCTTCTGCAGACCAGAGT
 CCTCACACCCTCCGAAAGTTTCAAAGAAGGTGGCACCAATTCCTCCCAAGGTCCCCTTCGTGCAGCCAG
 GGACTGTTTCAGATCAGCCCCTGGCCAGCCATCCCCAGTCAGCCTGTCTCCTACTCCACCAAGCACCCC
 ATCCCCCTATGGACTGAGCTACCCTCCAGGCTACTCCATGGCCTCTGGCCAGCTTCTCCTGCCTCAGCT
 CCTCCCCTGGCCTCTCCCTCTGTCTTTACAAGCACTTTAGCCAAATCTCGGCCACCCCTAAGCCTCGAC
 AGAGGCCACCCCTGCCGCTCCTCAGCCTCCCAGTGTGAGCCTGTGCGCTTCAAGTCCACAGTCCACAGA
 GCACCCCATGTTAGACGGCATGTGCGCGGGGAAAGCATGTCTACAGCTGT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_175003
Insert Size: 2295 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:	NM_175003.3 , NP_778168.2
RefSeq Size:	4099 bp
RefSeq ORF:	2295 bp
Locus ID:	216831
UniProt ID:	Q5SSM3
Cytogenetics:	11 B3
Gene Summary:	<p>GTPase-activating protein (GAP) that stimulates the GTPase activity of Rho-type GTPases. Thereby, controls Rho-type GTPases cycling between their active GTP-bound and inactive GDP-bound states. Acts as a GAP at least for CDC42 and RAC1 (PubMed:24352656, PubMed:26969129). In neurons, is involved in dendritic spine formation and synaptic plasticity in a specific RAC1-GAP activity (PubMed:23739967, PubMed:24352656, PubMed:26969129). Limits the initiation of exploratory dendritic filopodia. Recruited to actin-patches that seed filopodia, binds specifically to plasma membrane sections that are deformed inward by acto-myosin mediated contractile forces. Acts through GAP activity on RAC1 to reduce actin polymerization necessary for filopodia formation (By similarity). In association with SHANK3, promotes GRIA1 exocytosis from recycling endosomes and spine morphological changes associated to long-term potentiation (PubMed:23739967).</p> <p>[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) contains an alternate exon and differs in the 3' UTR, compared to variant 1. The resulting protein (isoform 2) is shorter and has a distinct C-terminus, compared to isoform 1.</p>