

Product datasheet for **MC221775**

Arhgap44 (NM_001099288) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgap44 (NM_001099288) 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)



[View online »](#)

Fully Sequenced ORF: >MC221775 representing NM_001099288
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGAAGCAGTTTAAACCGCATGCGCCAGTTGGCCAACACAGCGGTGGCAGGGCAGAAAAAGACTGAAG
 TTCTGAGCGAAGACCTTCTCCAGGTGGAGAAGCGCCTAGAGCTGGTGAAGCAGGTGTCCACAGCACACA
 CAAGAAGCTCACCGCATGTCTGCAGGGTCAACAGGGAGCAGAGGCCGACAAGCGATCAAAAAAGTTGCC
 CTGACGACTCTGGCGCAGTGCTTGGTGGAGGGTCCGCGATCCTGGGCGATGACACGCTTCTTGGGAAGA
 TGCTGAAGCTCTGCGGAGAGACGGAGGACAAGCTAGCTCAGGAGCTGATCCACTTTGAGCTGCAAGTGA
 GAGGGATGTGATCGAGCCCTGTCTGCTCGCTGAGGTGAAATTCAAATATTCAAAAGCAGAGGAAA
 CATTAGCCAAGCTGGTCTTGACATGGACTCTCCCGGACCAGGTGGCAGCAGACTTCAAAGTCTTCAG
 GGCTTCCAGCAGCTTCAAGCTGCGGGTCCAAAGCCGATGCCCTCAGGGAGGAGATGGAGGAGGCTGC
 CAACAGAGTGGAGATTTCCGGGACCAGCTTTCTGCTGACATGTACAGTTTTGTGGCCAAAGAAATTGAC
 TATGCAAACACTTTCAAACGCTAATAGAAGTGAAGCTGAGTACCACAGGAAGTCGCTGACACTGCTGC
 AGGCTGTGTTGCCTCAGATCAAAGCCCAGCAGGAGGCCTGGGTGGAGAAGCCTTCCTTTGGGAAGCCCT
 GGAGGAGCACCTGATGATCAGTGGCCGAGAGATCGCCTTCCTATCGAGGCGTGTGTGACCATGCTGCTG
 GAGTGTGGGATGCAGGAGGAGGGCCTTCCGGGTAGCCCTCAGCCTCCAAGCTGAAGAAGCTGAAAAG
 CTGCTCTGGACTGCTGTGTGGTGGATGTCCAGGAGTACTCGGTGACCCACAGCCATAGCAGGGGCTTT
 GAAGTCTTATCTCGAGAGTTGCCAGAGCCTTATGACCTTTGAACTCTATGACGAATGGATCCAGGCT
 TCTAATATCCAGGAGCAAGACAAGAGACTTCAGGCTCTCTGGAATGCTTGTGAGAAGTTGCCAAGGCCA
 ACCATAACAACATCAAATACTTGATCAAATTTTTATCGAAACTGTCTGAATATCAGGATGTAACAAGAT
 GACTCCACAGTAACATGGCAATTGTCTGGGACCAATCTCCTTTGGCCACAGTCAGAGGGGAACATCACC
 GAGATGATGACCACAGTTTCCCTGCAGATCGTTGGCATCATCGAGCCATTATCCAGCACCGAGACTGGT
 TCTTCCCTGGAGAGATAGAGTTCAACCTCACAGGCAGTACGGGAGTCCAGTCCACGTGAACCACAATGC
 CAACTACAGCTCAATGCCCTCCCGAGACATGGACCCTGCTGACCGGCCAGCCAGAGCAGGCCCCCGCG
 CCCCTCAGTGTGGCCACAGACAACATGATGCTGGAGTTTTACAAGAAGGATGGCATGGGTGTGAGGGTCA
 TGGACACATCTTGGGTGGCACGAAGAGGCTCCTCTGCTGGTGGAAAGCATCCTGCGCCCCGCTTCCAT
 GCAGCCTCCTGCCCCACCCTCCGAGCTGGCTGCACCCTTGCTTACCCCTGCCGAGCAGGTCCCAGAC
 AGCCCTGCCACTCCAGCTCCTGCGCTCTCTCCATCAGGTGCCAGCCTGCAGCCCACCCCGAGCGCCCCA
 GTGTGTCTAAAAGCAAGGAAGTGTGCGCCAGGGTCTGGGCAGAAAGGAAGTCCAGGTTCCATCCAGGGAC
 ACCCTGCCAGGGACGCAACTGGGGCCACAGCCGGCTGCCAGCCCCAGCCAGCTTCTGCAGACCAGAGT
 CCTCACACCCTCCGAAAGTTTCAAAGAAGGTGGCACCAATTCCTCCCAAGGTCCCTTCGTGCAGCCAG
 GGACTGTTTCAGATCAGCCCCTGGCCAGCCATCCCCAGTCAGCCTGTCTCCTACTCCACCAAGCACCCC
 ATCCCCCTATGGACTGAGCTACCCTCCAGGCTACTCCATGGCCTCTGGCCAGCTTCTCCTGCCTCAGCT
 CCTCCCCTGGCCTCTCCCTCTGTCTTTACAAGCACTTTAGCCAAATCTCGGCCACCCCTAAGCCTCGAC
 AGAGGCCACCCCTGCCGCTCCTCAGCCTCCCAGTGTGAGCCTGTGCGCTTCAAGTCCACAGTCCACAGA
 GCACCCCATGTTAGACGGCATGTGCGCGGGGAAAGCATGTCTACAGATCTCGTCCACTTTGATGTCCCC
 TCCATCCACATAGAGCTGGGGTCAACGCTCCGCTGAGCCCCCTGGAACATGCACGGCGGCACTCGGCAA
 CAGACAAGAGGGACTCGGAAGAGGAGTCTGAGAGTACAGCCCTTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001099288
Insert Size: 2427 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_001099288.1 , NP_001092758.1
RefSeq Size:	4047 bp
RefSeq ORF:	2427 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 (1) encodes the longer isoform (1).</p>