

## Product datasheet for **MR216207**

### Arhgap44 (NM\_001099288) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgap44 (NM_001099288) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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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**ORF Nucleotide Sequence:**

>MR216207 representing NM\_001099288  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAAGAAGCAGTTTAAACCGCATGCGCCAGTTGGCCAACACAGACGGTGGGCAGGGCAGAAAAAGACTGAAG  
 TTCTGAGCGAAGACCTTCTCCAGGTGGAGAAGCGCCTAGAGCTGGTGAAGCAGGTGTCCACAGCACACA  
 CAAGAAGCTCACCGCATGTCTGCAGGGTCAACAGGGAGCAGAGGCCGACAAGCGATCAAAAAAGTTGCC  
 CTGACGACTCTGGCGCAGTGCTTGGTGGAGGGTCCGCGATCCTGGGCGATGACACGCTTCTTGGGAAGA  
 TGCTGAAGCTCTGCGGAGAGACGGAGGACAAGCTAGCTCAGGAGCTGATCCACTTTGAGCTGCAAGTGGA  
 GAGGGATGTATCGAGCCCTGTTCTGCTCGCTGAGGTGAAATTCCAATATTCAAAAGCAGAGGAAA  
 CATTTAGCCAAGCTGGTCTTGACATGGACTCTCCCGGACCAGGTGGCAGCAGACTTCCAAGTCTTCAG  
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 CAACAGAGTGGAGATTTGCCGGGACCAGCTTTCTGCTGACATGTACAGTTTTGTGGCCAAAGAAATTGAC  
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 GACTCCCAGTAACATGGCAATTGTCTGGGACCCAATCTCCTTTGGCCACAGTCAGAGGGGAACATCACC  
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 TCTTCCCTGGAGAGATAGAGTTCAACCTCACAGGCAGTACGGGAGTCCAGTCCACGTGAACCACAAATGC  
 CAACTACAGCTCAATGCCCTCCCAGACATGGACCCTGCTGACCGGCCAGCCAGAGCAGGCCCCCGCG  
 CCCCTCAGTGTGGCCACAGACAACATGATGCTGGAGTTTTACAAGAAGGATGGCATGGGTGTGAGGGTCA  
 TGGACACATCTTGGGTGGCAGGAAGAGGCTCCTCTGCTGGTGGAAAGCATCCTGCGCCCCGCCTCCAT  
 GCAGCCTCCTGCCCCACCCTCCGAGCTGGCTGCACCCTTGCTTACCCCTGCCGAGCAGGTCCCAGAC  
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 CAGACAAGAGGGACTCGGAAGAGGAGTCTGAGAGTACAGCCCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR216207 representing NM\_001099288  
 Red=Cloning site Green=Tags(s)

MKKQFNRMRLANQTVGRAEKTEVLSDLLQVEKRELVKQVSHSTHKKLTACLQGGQGAEDKRSKKLP  
 LTTLAQCLVEGSAILGDDTLLGKMLKLCGETEDKLAQELIHFELQVERDVEPLFLLAEVEIPNIQKQRK  
 HLAKLVLDMDSSRTRWQQTSSSGLSSSLQPAGAKADALREEMEEAANRVEICRDQLSADMYSFVAKEID  
 YANYFQTLIEVQAEYHRKSLTLLQAVLPQIKAQQEAWVEKPSFGKPLEEHLMISGREIAFPPIEACVTMLL  
 ECGMQEEGLFRVAPSASKLKKLKAALDCCVVDVQEYSADPHAIAGALKSYLRELPEPLMTFELYDEWIQA  
 SNIQEQDKRLQALWNACEKLPKANHNHNIKYLKFLSKLSEYQDVNKMTPSNMAIVLGNLLWPQSEGNIT  
 EMMTTVSLQIVGIIIEPIIQHADWFFPGEIEFNLTGSYGSPPVHVHNHANYSSMPSDMDPADRRQPEQARR  
 PLSVATDNMMLEFYKKGDMGVRVMDTSWVARRGSSAGRKASCAPPSMQPPAPPSELAAPLPSPLPEQVDP  
 SPATPAPALSPSGASLQPTPERPSVSKSKELSPGSGQKGSPIQGTCPGPTQLGPQPAASPSQLPADQS  
 PHTLRKVSKKVAPIPPKVPFVQPGTVSDQPVGQSPVSLSPTPPSTPSPYGLSYPPGYSMASGQLSPASA  
 PPLASPSVFTSTLAKSRPTPKPRQRPTLPPPQPPSVLSASSPQSTEHPMLDGMSPGESMSTDLVHFDVP  
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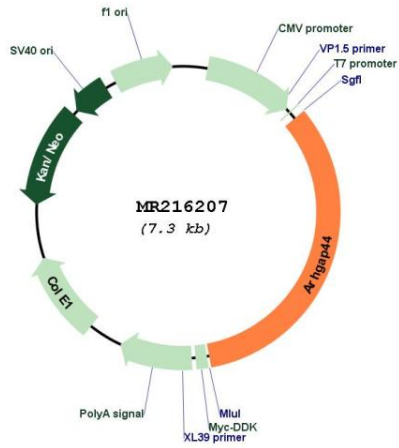
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001099288.1, NP_001092758.1</u>
<b>RefSeq Size:</b>	4047 bp
<b>RefSeq ORF:</b>	2427 bp
<b>Locus ID:</b>	216831
<b>UniProt ID:</b>	<u>Q5SSM3</u>
<b>Cytogenetics:</b>	11 B3
<b>MW:</b>	88.7 kDa
<b>Gene Summary:</b>	<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). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR216207