

## Product datasheet for **MR205893**

### Arhgap8 (BC024991) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arhgap8 (BC024991) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arhgap8
Synonyms:	MGC32512
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205893 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGTTCGCCAGCCTCAGTGACCTGGGCAAGAGGGAGCCGGGCGGGCGGGTACGGACGAGCGGGCA  
CGCAGCAGCGCCGGCCTGCGCCAACGCCACCTGGAACAGTATCCATAACGGAGTGATCGCGTCTTCCA  
GCGCAAGGGGCTGCCGACCAGGAGCTTTCATCCTCAACGAGGGCGTCCGGCAGCTGCTGAAGACGGAG  
CTGGGGTCTTCTCACTGAGTACCTGCAGAACCAGCTGCTCACGAAGGGCATGGTGATTCTTCGTGACA  
AGATTCGTTCTACGAAGGACAGAAGCTGCTGGACTCATTGGCGGAGACCTGGGATTTCTTCTTCAGTGA  
TGTGCTGCCAACCTGCAGGCCATCTTCTATCCTGTGCAGGGCAAGGAGCCGTCGGTGCGCCAGCTCGCC  
CTGCTGCATTTCCGGAACACCATCACCCCTCAGCGTGAAGCTGGAGACGCGCTGGCCCGCTCTCACGCGC  
GTGTTCCCCCTGCCATCGCACAGATGCTGCTGGTACTGCAGGGGGTACATGAGTCCAGGGGTGTGACTGA  
AGACTATCTGCGCCTCGAGACACTGATTGAGAAGTGGTGTGCGCGTACCTGGGCACCTATGGTCTCTAT  
TCCAATGAAGGACCTTGTAATCCTGTATCCTCGAGAAACGATTCTACGCCGCTCCCGCTCTGGGG  
ATATCCTAGCCAAGAACCAGTGGTGGCTCCAAAAGCTACAACACTCCCTGCTCAATCCTGTGGCCGA  
GCATGAAGCAGAAGGCACAGCAGCCAGCGGCACGAGCATCCGACAGACTCAGTCTCCGAGATGACATCT  
TGTCGGAGCCCCAGGGCTTTGTGGACAGCCTGGCCAGGGCCCTCGGGGACCTCCGGTCTTCTCCAA  
CACCCACTCAGGGCCTTGCCCCAGCAGACTATACCCCTGCCCCATTCCCGGAACAGGGCCAGGCCA  
TGGCTCCCATCCACCTCCAGCCAGAGACTCTTGTGGACCAGATCCTGGAGTCCGCGGACTCAGACTCG  
GAAGGGATATTGACTTTGGCGGGGAAGTCGCTCCAGTGTGTGACTTTGAGGCACCGGGAGGCC  
GGCCAAGTGTGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205893 protein sequence  
 Red=Cloning site Green=Tags(s)

MSSPSLSDLGKREPGAAGTDERGTQRRACANATWNSIHNGVIAVFORKGLPDQELFILNEGVRQLLKTE  
 LGSFFTEYLQNQLLTGKMVILRDKIRFYEQKLLDSLAEWDFFFSDVLPQLQAIFYPVQKQKPSVRQLA  
 LLHFRNTITLSVKLEDALARSHARVPPAIAQMLLVLQGVHESRGVTEDYLRLETLIQKVVSPYLGTYGLY  
 SNEGPCTHSCILEKRFLRRSRSGDILAKNPVVRKSYNTPLLNPVAEHEAEGTAASGTSIRRHSVSEMST  
 CPPEQGFVDTPGQGPSGTFRSSPTPHSGPCPSRLYPPAHSPEQPGHGGSPSTSSPETLVDQILESADSDS  
 EGIFIDFGRGRSSVSDFEAPGGRPSV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** BC024991

**ORF Size:** 1134 bp

**OTI Disclaimer:** 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:** [BC024991](#), [AAH24991](#)

**RefSeq Size:** 1731 bp

**RefSeq ORF:** 1136 bp

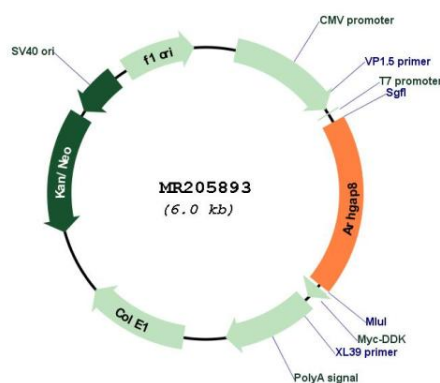
**Locus ID:** 109270

**Cytogenetics:** 15 E2

**MW:** 41.3 kDa

**Gene Summary:** Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. PRR5 plays an important role in regulation of PDGFRB expression and in modulation of platelet-derived growth factor signaling. May act as a tumor suppressor in breast cancer (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR205893