

## Product datasheet for **MR209696**

### **Abr (BC059064) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Abr (BC059064) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Abr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209696 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAATCCTGCTCATCTTCGTTCTGCTGTAAGTGCACCTATGCTCTGCTGTACAAGCCAATTGACC  
 GAGTCACCCGGAGCACCCCTGGTCTTACGATCTGTTGAAGCACACCCGGTGGACCACCCGGACTACCC  
 GCTGCTTCAGGATGCTCTCCGCATCTCCAGAATTTCTGTCTAGCATTAAAGAGGACATTGATCCTCGC  
 CGGACTGCAGTACAACCCCAAGGGAGAGACTCGGCAGCTGGTGAAGGACGGCTTCTGGTGGAAATGT  
 CTGAGAGCTCCCGAAGCTGCGGCATGTCTTCTTTCACAGATGTTCTGCTGTGTGCCAAGCTAAAGAA  
 GACCTCAGCAGGAAAGCATCAGCAGTATGACTGTAAGTGGTACATCCCTCTGGCTGACTTAGTGTCCCA  
 TCCCTGAGGAGTCAGAGGCCAGTCCCGAGGTGCACCCCTTCCAGACCACGAGCTCGAGGACATGAAAA  
 CGAAGATCTCTGCCCTCAAGAGTGAGATCCAGAAGGAGAAAGCCAACAAGGACAGAGCCGAGCCATTGA  
 GCGCCTCAAAAAGAAGATGTTTGAAGTGAAGTCTTACTGCTGCTCAATCCCAACGATCCCTTCCGG  
 ATACACAATCGGAATGGAAGAGTTACCTGTTTCTTCTGCTTCTGACTATGAGAGGTGGAGTGGAGAG  
 AAGCGATTCAGAAGCTACAGAAGAAGGATCTCCAGGCCTTTGTCCTGAGCTCTGTGGAGCTCCAGGTGCT  
 CACGGGATCCTGTTTCAAGCTTAGGACTGTGCACAACATTCCTGTACCAGCAATAAAGATGATGATGAG  
 TCTCCAGGACTGTACGGCTTCTTCATGTCATCGTCCACTCTGCCAAGGGCTTTAAACAGTCAGCCAATC  
 TTTACTGTACTCTGGAGGTGGATTCTTTGGCTATTTTGTGAGCAAGCAAGACCAGGGTGTTCGGGA  
 CACGACAGAGCCCAAGTGGGATGAGGAGTTTGAAGTGGAGTGGAGGGTTACAGTCCCTGAGGATCCTG  
 TGTTATGAGAAGTGTACGACAAGACCAAGGTCAACAAGACAACAATGAGATTGTGGACAAGATCATGG  
 GCAAGGGGCAGATCCAGCTGGATCCACAGACAGTAGAAAAGCAAGAACTGGCATAACGACGTGATTGAAAT  
 GAATGGGATCAAAGTGAATTCTCCATGAAATTTACCAGCCGTGACATGAGCCTGAAGAGGACCCCATCC  
 AAAAAGCAGACAGGCGTCTTTGGAGTGAAGATCAGCGTGGTGACCAAGCGGGAGCGCTCCAAGGTGCCCT  
 ACATCGTCCGGCAATGCATAGAAGAGGTGGAGAAGAGGGGCATTGAGGAGTTGGCATCTACAGGATATC  
 AGGGGTGGCCACGGACATCCAGGCCCTGAAGGCTGTCTTTGATGCCAATAACAAGGACATCCTACTGATG  
 CTGAGCGACATGGACATCAACGCCATCGCTGGGACCCCAAGCTATACTTTCGGGAGCTGCCTGAGCCCC  
 TCCTTACAGATAGACTTTATCCAGCCTTATGGAGGGCATTGCCCTGTGACACCCTGCTGCCAAGGAGAA  
 CTGCATGATGCACCTACTCCGCTCCCTGCCTGACCCCAACCTCATCACCTTCTTTTCTGCTGGAACAC  
 TTGAAAAGGGTGTGAGAGGAGGCCATCAACAAGATGTCACCTTCAACAACCTTGCCACGGTGTTCGGCC  
 CCACGTTACTGAGACCATCAGAAGTGGAGAGCAAGCACATCTCACATCAGCTGCAGACATCTGGTCCCA  
 TGATGTATGGCCAGGTCCAGGTCTCTACTACTACCTGCAGCATCCCCCATTCTTCGCGAGAAGT  
 AAGCGGAACACACTGTACTTCTCCACAGACGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209696 protein sequence  
Red=Cloning site Green=Tags(s)

```
MEILLIIRFCNCTYALLYKPIDRVTRSTLVLDLLKHTPVDHPDYPLLQDALRISQNFLSSINEDIDPR
RTAVTTPKGETRQLVKDGFVEMSESSRKL RHVFLFTDVLLCAKLKTSAGKHQQYDCKWYIPLADLVFP
SPEESEASPQVHPFPDHELEDMKTKISALKSEIQKEKANKGQSRAIERLKKKMFENEFLLLNSPTIPFR
IHNRRNGKSYL FLLSSDYERSEWREAIQKLQKQDLQAFVLSVELQVLTGSCFKLRTVHNIPTVSNKDDDE
SPGLYGF LHVIVHSAGFKQSANLYCTLEVD SFGYFVSKAKTRVFRDTTEPKWDEEFEIELEGSQSLRIL
CYEKCYDKTKVKNKDNNEIVDKIMGKGQIQ LDPQTVESKNWHTDVIEMNGIKVEFSMKFTSRDMSLKRTPS
KKQTGVFGVKISVVTKRERSKVPYIVRQCIEEVEKRGIEEVGIYRISGVATDIQALKAVFDANNKDILLM
LSDMDINA IAGTLKLYFRELPEPLLTDRLYPAFMEGIALSDPAAKENCMHLLRSLPDPNLITFLFLEH
LKRVAEKEPINKMSLHNLATVFGPTLLRPSEVESKAHL TSAADIWSDVMAQVQVLLYYLQHPPI SFAEL
KRNTLYFSTDV
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** BC059064

**ORF Size:** 1923 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:** [BC059064](#), [AAH59064](#)

**RefSeq Size:** 4455 bp

**RefSeq ORF:** 1925 bp

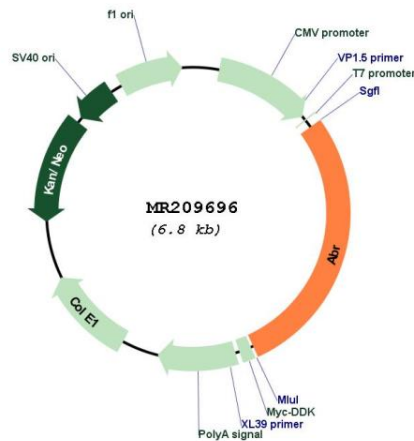
**Locus ID:** 109934

**Cytogenetics:** 11 45.92 cM

**MW:** 73.5 kDa

**Gene Summary:** Protein with a unique structure having two opposing regulatory activities toward small GTP-binding proteins. The C-terminus is a GTPase-activating protein domain which stimulates GTP hydrolysis by RAC1, RAC2 and CDC42. Accelerates the intrinsic rate of GTP hydrolysis of RAC1 or CDC42, leading to down-regulation of the active GTP-bound form. The central Dbl homology (DH) domain functions as guanine nucleotide exchange factor (GEF) that modulates the GTPases CDC42, RHOA and RAC1. Promotes the conversion of CDC42, RHOA and RAC1 from the GDP-bound to the GTP-bound form (By similarity). Functions as an important negative regulator of neuronal RAC1 activity (PubMed:20962234). Regulates macrophage functions such as CSF-1 directed motility and phagocytosis through the modulation of RAC1 activity (PubMed:17116687).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR209696