

Product datasheet for **MG209696**

Abr (BC059064) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Abr (BC059064) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Abr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209696 representing BC059064
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAAATCCTGCTCATCTTCGTTCTGCTGTAAGTGCACCTATGCTCTGCTGTACAAGCAATTGACC
 GAGTACCCTGGAGCACCTTGGTCTTACGATCTGTTGAAGCACACCCGGTGGACCACCCGGACTACCC
 GCTGCTTCAGGATGCTCTCCGCATCTCCAGAATTTCTGTCTAGCATTAAAGAGGACATTGATCTCCGC
 CGGACTGCAGTACAACCCCAAGGGAGAGACTCGGCAGCTGGTGAAGGACGGCTTCTGGTGGAAATGT
 CTGAGAGCTCCCGGAAGCTGCGGCATGTCTTCTTTCACAGATGTTCTGCTGTGTGCCAAGCTAAAGAA
 GACCTCAGCAGGAAAGCATCAGCAGTATGACTGTAAGTGGTACATCCCTCTGGCTGACTTAGTGTCCCA
 TCCCTGAGGAGTCCAGAGCCAGTCCCGAGGTGCACCCCTTCCAGACCACGAGCTCGAGGACATGAAAA
 CGAAGATCTCGCCCTCAAGAGTGAATCCAGAAGGAGAAAGCCAAACAAGGACAGAGCCGAGCCATTGA
 GCGCCTCAAAAAGAAGATGTTTGAAGTGAATTTACTGCTGCTCAATCCCAACGATCCCTTCCGG
 ATACACAATCGGAATGGAAGAGTTACCTGTTTCTTCTGTCTTCTGACTATGAGAGGTGGAGTGGAGAG
 AAGCGATTGAGAAGCTACAGAAGAAGGATCTCCAGGCCTTTGTCCTGAGCTCTGTGGAGCTCCAGGTGCT
 CACGGGATCCTGTTTCAAGCTTAGGACTGTGCACAACATTCCTGTACCAGCAATAAAGATGATGATGAG
 TCTCCAGGACTGTACGGCTTCTTCATGTCATCGTCCACTCTGCCAAGGGCTTTAAACAGTCAGCCAATC
 TTTACTGTACTCTGGAGGTGGATTCTTTGGCTATTTTGTGAGCAAGCAAGACCAGGGTGTTCGGGA
 CACGACAGAGCCCAAGTGGGATGAGGAGTTTGAAGTGGAGTGGAGGGTTACAGTCCCTGAGGATCCTG
 TGTTATGAGAAGTGTACGACAAGCAAGGTCAACAAGACAACAATGAGATTGTGGACAAGATCATGG
 GCAAGGGGCAGATCCAGCTGGATCCACAGACAGTAAAGCAAGAAGTGGCATAACGAGGATGATTGAAAT
 GAATGGGATCAAAGTGGAAATCTCCATGAAATTTACCAGCCGTGACATGAGCCTGAAGAGGACCCCATCC
 AAAAAGCAGACAGCGCTCTTTGGAGTGAAGATCAGCGTGGTACCAGCGGGAGCGCTCCAGGTGCCCT
 ACATCGTCCGGCAATGCATAGAAGAGGTGGAGAAGAGGGGCATTGAGGAGTTGGCATCTACAGGATATC
 AGGGGTGGCCACGGACATCCAGGCCCTGAAGGCTGTCTTTGATGCCAATAACAAGGACATCTACTGATG
 CTGAGCGACATGGACATCAACGCCATCGCTGGGACCTCAAGCTATACTTTGGGAGCTGCCTGAGCCCC
 TCCTTACAGATAGACTTTATCCAGCCTTATGGAGGGCATTGCCCTGTGAGACCTGCTGCCAAGGAGAA
 CTGCATGATGCACCTACTCCGCTCCCTGCCTGACCCCAACCTCATCACCTTCTTTTCTGCTGGAACAC
 TTGAAAAGGGTGTGAGAAGGAGCCCATCAACAAGATGCACTTACAACCTTGCCACGGTGTTCGGCC
 CCACGTTACTGAGACCATCAGAAGTGGAGAGCAAGCACATCTCACATCAGCTGCAGACATCTGGTCCCA
 TGATGTCATGGCCAGGTCCAGGTCTCTACTACCTGCAGCATCCCCCATTCTCTCGCAGAAGT
 AAGCGGAACACTGTACTTCTCCACAGACGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209696 representing BC059064
 Red=Cloning site Green=Tags(s)

MEILLIIRFCCNCTYALLYKPIDRVTRSTLVLDLLKHTPVDPDYPDLLQDALRISQNFLSSINEDIDPR
 RTAVTTPKGETRQLVKDGFVEMSESSRKLHVFLFTDVLCAKLLKTSAGKHQQYDCKWYIPLADLVFP
 SPEESEASPVVHPFDHELEDMKTKISALKSEIQKEKANKGQSRAIERLKKKMFENEFLLLNSPTIPFR
 IHNRRNGKSYLFLSSDYERSEWREAIQKLQKDLQAFVLSVELQVLTGSCFKLRTVHNIIPVTSNKDDDE
 SPGLYGLHVIVHSAKGFQSANLYCTLEVDSFGYFVSKAKTRVFRDTTEPKWDEEFIEIELEGSQSLRIL
 CYEKCYDKTKVKNKDNEIVDKIMGKGQIQDPQTVESKNWHTDVIEMNGIKVEFSMKFTSRDMSLRTPS
 KKQTVGFGVKISVVTKRERSKVPYIVRQCIEEVEKRGIEEVGIYRISGVATDIQALKAVFDANNKIDLLM
 LSDMDINAIAGTLKLYFRELPELLTDRLYPAFMEGIALSDPAAKENCMHLLRSLPDPNLITFLFLEH
 LKRVAEKEPINKMSLHNLATVFGPTLLRPSEVESKAHLTSAADIWSDVMAQVQVLLYYLQHPPIISFAEL
 KRNTLYFSTDV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: BC059064

ORF Size: 1925 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

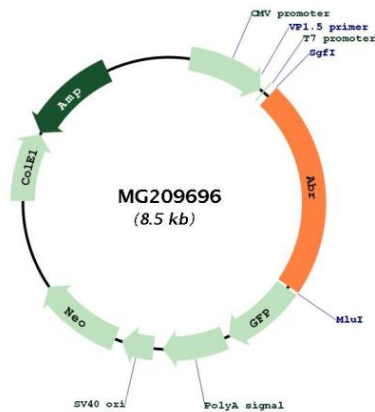
RefSeq ORF: 1925 bp

Locus ID: 109934

Cytogenetics: 11 45.92 cM

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 MG209696