

## Product datasheet for **MC224934**

### Arfgef2 (NM\_001085495) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Arfgef2 (NM\_001085495) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Arfgef2  
**Synonyms:** AI463430; AW493672; BIG2; E230011G24Rik  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224934 representing NM\_001085495  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGCAGGAAAGCCAGACCAAGAGCATGTTCTGTGCCGGGCCCTGGAGAAGATCCTAGCTGACAAGGAGG  
 TGAAGCGGCCAGCACTCCCAGCTGCGTAGGGCTGCCAGGTGGCGCTCGATGAAATTAAGCAGAAGT  
 AGAAAAGCAGAGGCTTGGCGCTCGGGCTCCACCAAAGGCAAATTCATTGAAGCTGACAAGTATTTCTT  
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 TCATCGCATATGGACACATCACTGGCAATGCCCTGACAGTGGCGCTCCTGGGAAGCGGCTGATCGACAG  
 GATCGTTGAAACCATTTGCAATGTTTTAGGGCCCTCAGACAGATGAAGGGGTTAGCTACAAATCATT  
 AAGGCTCTGCTGACTGCTGTGACATCCCACACATTGAAATCCATGAGGGCACCATCCTGCAGACAGTGA  
 GGACCTGCTACAATATCTATCTGGCCAGCAAAACCTCATCAATCAAACCACCGCCAAGGCCACCCTTAC  
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 CCAATGCAGTCAAACCTCAGTCCCGGTGATCCAGGCCACAGCAGGCTCTCCAAGTTCAGCCGCTGA  
 AGCAGAGCCAGGCCAGAGCAAACCCAGACTCCTGAGAAAGCAGAGCTGCCAATGGGACCATGCCCA  
 GAGTGGCCTAGGAAAAGTGAAGTGGAAAATGGAGAAGCTCCCGAGAGAGAGGCTCGCCAGTCTCTGGG  
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 AACATTTAGAAACATCCACAAGTCTTTTGGAGCAGGCTGGATGGTCATTACAGACCCTGACGAGGATTT



GTGCAGATGCCCAGTGCCTTGTGGATATTTATGTCAACTACGACTGTGACTTAAATGCTGCTAACATTTT  
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 CTACAGGAGCTCAGTCTGAGGAAGAAAGGCCTGGAGTGTCTGGTGTCTATTCTCAAGTGCATGGTGGAGT  
 GGAGCAAGGACCTGTATGTGAATCCCAACCACCAGGCTACCCTGGGTGAGGAGAGGCTCCAGATCAGGA  
 AATGGGGACGGAAAAGGCCTTGACATGGCAAGACGGTGCAGCGTGACATCCGTGGAGTCCACAGTGTCC  
 TCGGGGACCCAGACAGCCATTCAGGATGACCCAGAGCAGTTTGAGGTCATCAAACAACAGAAGGAAATCA  
 TTGAGCATGGCATTGAGCTCTCAATAAGAAGCCCAAGCGAGGTATCCAGTTTCTCCAAGAGCAAGGCAT  
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 GAGCACACAATTGCGACCAAGTCCACCAAGCAGAGTGTAGCTAGTGAAAAGCAGAGGCGGCTGCTGTACA  
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 GTTTACCAGCGCCACACACTTGACCATTGTCCGGCCAATGTTCAAACCTGGTGTGGACGCCGCTGCTGGCA  
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 CTTTTCCCTGTGACAGCCAGCTCCAGCATCACAGAAATGAAGCAGAAAAACATCGACACCATAAAGACA  
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 GCCAGTGGAGCTTGTGCTCAGTGTATAGAACTGGGGTGAAGACTCGTACCTCTCTGGCTTGGGCGGGA  
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 TGTCCGTTGGCTGTGTGCTGTGTCCATGGATGAGCTGGCTTCTCCCCACCATCCTCGAATGTTTACGCTG  
 CAGAAGATTGTGAAATATCATACTACAACATGAACAGGATCCGGCTGCAGTGGTCTCGGATATGGCATG  
 TCATTGGAGATCACTTCAATAAGGTCCGCTGTAAACCCCAATGAAGATGTGGCCATCTTCGAGTTGACTC  
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 CTGAGGCCATTTGAACATATTATGAAGAAAAACAGTCCCGACCATCCGGGACATGGTGTATCCGATGCA  
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 CCAGGCTGCCTCTGACCACGATGGGAACATTGTGGAGCTGGCCTTCCAAACCACAGGCCACATCGTCTCA  
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 TCGCCTGCAATGCAGCTTCCCTGACACCAGCATGGAGGCCATCCGGCTCATCCGCTTCTGTGGGAAATA  
 CGTCTCAGAGAGGCTCGGGTGTGCAAGAGTACACAAGTGTGATATGAATGTGGCTCCTGGTACAGG  
 GTCTGGGTGAGAGGCTGGTTCCCATCTGTTTGAACCTCCTGCATCATTAAACAGATGCAAGTTAGATG  
 TACGCACAAGGGGACTCACGGTCATGTTTGAAGATTATGAAGAGCTATGGCCACACCTTTGCAAAGCACTG  
 GTGGCAGGACCTGTTTCAAGTTCGTTTCAAGTTCGAAATTTTGAACAACATGAAACTCCCTGAGCAACAGT  
 AAATCAGAGTGGATGACGACCAGTGAACATCATGCACTGTACGCTATTTGTGACGTATTCACCCAGTTCT  
 ACGAAGCTTTGCATGAAGTGTCTCTCTGATGTGTTTGCAGCAGCTGCAGTGGTGGTGAACAAGATAA  
 TGAGCAGTTGGCCGATCAGGTACGAACCTGCTTAGAGAACCTAGTGTATCCAACGGCGAGAAGTTACAGC  
 CCTGCTGTCTGGGATGAAACCTGCAATTTGCATGTTGGATATTTTCAAACCACCATCCCACATGTTTTGC  
 TGACGTGGAGACCTGCGGGATGGAGGAGGAGGTGCAGATAGACATCTGGATGTGGACCTAGACCGCCA  
 GTCTTTAAGCAGCATAGACAGAAACGCCTCCGAGAGAGGACAGAGCCAGCTGTCCAACCCCACTGACGAC  
 AGCTGGAAGGGGGACCGTATGCACATCAGAACTGCTGGCCAGCCTCCTCATCAAGTGTGTGGTTTACAGC  
 TGGAGCTGATCCAGACATTGACAACATCGTGTCTACCCTGCCACCAGCAAGAAGGAGGATGCGGAGCA  
 CATGGTTGCTGCCAGCAAGACACCCTCGATGCAGAGATCCACATCGAGACGGAGAATCAGGGCATGTAC  
 AAGTTCATGTCCTCCAGCACCTTCAAGCTGCTGGACTGCCTGCAGGAGTCCCACTCCTTCTCCAAGG  
 CCTTCAACTCCAATATGAGCAGCGGACTGTCTCTGGCGAGCTGGCTTCAAGGGCAAGTCCAAACCCAA  
 TCTTCTCAAACAAGAAACCAGCAGCCTGGCCTGTTGTCTAAGGATCCTGTTTAGAATGTACGTTGATGAG  
 AACCAGGAGGATCCTGGGACGAAATACAGCAGCGACTTCAAGAGTGTGCAAGTGAAGCACTTGCCTATT  
 TCATTACTGTGAACCTCCAGAGCCATCGGAAGCATGGACGAGCCTCTGCTGCTACTTCAACCAAAAC

CCTCAAGATAAGCGATGAAAAGTTCAAAGCACACGCGTCAATGTACTACCCCTACCTGTGTGAAATTATG  
CAGTTTGACCTGATCCCTGAGCTCCGAGCAGTTCTGCGAAAGTTCTTCTGCGGATAGGCCTGGTGTATA  
AGATATGGATTCCAGAAGAGCCGTCGCAAGTCCAGCAGCACTGTCATCGACCTGGTAG

AGCGGACCGACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-RsrII

**ACCN:** NM\_001085495

**Insert Size:** 5379 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:**

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\\_001085495.2](#), [NP\\_001078964.1](#)

**RefSeq Size:** 8777 bp

**RefSeq ORF:** 5379 bp

**Locus ID:** 99371

**UniProt ID:** [A2A5R2](#)

**Cytogenetics:** 2 H3

**Gene Summary:** Promotes guanine-nucleotide exchange on ARF1 and ARF3 and to a lower extent on ARF5 and ARF6. Promotes the activation of ARF1/ARF5/ARF6 through replacement of GDP with GTP. Involved in the regulation of Golgi vesicular transport. Required for the integrity of the endosomal compartment. Involved in trafficking from the trans-Golgi network (TGN) to endosomes and is required for membrane association of the AP-1 complex and GGA1. Seems to be involved in recycling of the transferrin receptor from recycling endosomes to the plasma membrane. Probably is involved in the exit of GABA(A) receptors from the endoplasmic reticulum. Involved in constitutive release of tumor necrosis factor receptor 1 via exosome-like vesicles; the function seems to involve PKA and specifically PRKAR2B. Proposed to act as A kinase-anchoring protein (AKAP) and may mediate crosstalk between Arf and PKA pathways (By similarity).[UniProtKB/Swiss-Prot Function]