

## Product datasheet for **RG218946**

### ARHGEF7 (NM\_003899) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF7 (NM_003899) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARHGEF7
Synonyms:	BETA-PIX; COOL-1; COOL1; Nbla10314; P50; P50BP; P85; P85COOL1; P85SPR; PAK3; PIXB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG218946 representing NM\_003899  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACCGATAATAGCAACAATCAACTGGTAGTAAGAGCAAAGTTAACTCCAGCAGACCAATGAGGACG  
 AGCTTTTCCTTCTCAAAGGAGACGTCATCCATGTACCCGTGTGGAAGAGGGAGGCTGGTGGGAGGGCAC  
 ACTCAACGGCCGACCGGCTGGTCCCCAGCAACTACGTGCGGAGGTCAGGCCAGCGAGAAGCCTGTG  
 TCTCCAAATCAGGAACACTGAAGAGCCCTCCAAAGGATTTGATACGACTGCCATAAACAAGCTATT  
 ACAATGTGGTGCTACAGAATATTTAGAAAACAGAAAATGAATATTCTAAAGAACTTCAGACTGTGCTTC  
 AACGTACCTACGGCATTGCAGACCAGTGAAGAAGTTAAGTTCAGCAAACATTTTCATATTTAATGGAAAT  
 CTAGAAGAAATATGTTCTTTCCAGCAAATGCTCGTACAGTCTTTAGAAGAATGCACCAAGTTGCCGGAAG  
 CTCAGCAGAGAGTCGGAGGCTGCTTTTTAAACCTGATGCCACAGATGAAAACCTGTACCTCACGTATTG  
 TGCCAATCACCTTCTGCAGTGAATGTCCTCACGGAACACAGTGAGGAGTTGGGGGAGTTCATGGAGACC  
 AAAGGTGCCAGCAGCCCTGGGATTCTCGTGTGACACGGGCCTGAGCAAACCTTCATGCGCCTGGATA  
 AATACCCTACGCTGCTCAAGAGCTCGAGAGACACATGGAGGATTATCATACAGATAGACAAGATATTCA  
 AAAATCCATGGCTGCCTTCAAAAACCTTCAGCCCAATGTCAAGAAGTCCGGAAGAGGAAAGAGCTTGAG  
 CTGAGATCCTGACGGAAGCCATCCGGAAGTGGGAGGGGATGACATTAACCTGTTGGCAACGTCACCT  
 ACATGTCCAGGTCTGATTGAGTGTGCCGGAAGTGAAGAAAAGAAATGAAAGATATCTTCTACTCTTCCC  
 AAATGTTTTGCTAATGTTGTCTGCCAGTCTAGGATGAGTGGCTTTATCTATCAGGAAAGCTTCCAACG  
 ACAGGAATGACAATCACAAAGCTTGAGGACAGTAAAAATCATAGAATGCATTTGAAATATCAGGGAGCA  
 TGATTGAGCGGATATTAGTGTCTGCAACAACCAGCAGGATTCGAGGAATGGGTGGAGCACATACAGAA  
 GCAAACGAAGGTACGTCTGTGGGAAACCCACCATAAAGCCTCATTGAGTCCATCTCATACCCTCCCC  
 TCCCACCCGCTACTCCGTCCAGCAAGCACGACAGCAAGCCCGCGCCGCTGACGCCCCCTACCACA  
 CGCTGCCCCACCCTCCACCACGGCACCCCGCACACCACCTCAACTGGGGACCCTGGAGCCTCCGAA  
 AACACCCAAGCCCTGGAGCCTGAGCTGCCTGCGGCCCGCCCTCCCCTCCGGCCCTCAGTGTCTCTG  
 TACAAGGAGGATCTTAGTAAGAGCCCTAAGACCATGAAAAGCTGCTGCCAAGCGCAAACCTGAACGGA  
 AGCCTTCAGATGAGGAGTTCGCGTCCCGAAAAGCACAGCTGCTTTGGAAGAAGATGCTCAGATTCTGAA  
 AGTCATTGAAGCTTACTGCACCAGCGCCAAAACAAGGCAAACACTCAATCAAGTTCACGCAAAGAATCT  
 GCTCCACAAGTTTTGCTCCAGAAGAAGAGAAAATATAGTGAAGAACTAAAAGTAATGGTCAGACAG  
 TGATAGAAGAAAAGAGTCTTGTGGATACCGTATATGCATTAAGGATGAAGTTCAAGAATTAAGACAGGA  
 CAACAAAAGATGAAGAAATCTCTAGAGGAAGAACAGAGAGCCCGCAAAGACCTGGAGAAGCTGGTGAGG  
 AAAGTCTGAAGAACATGAATGATCCTGCCTGGGATGAGACCAATCTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG218946 representing NM\_003899  
 Red=Cloning site Green=Tags(s)

MTDNSNNQLVVRAKFNFQQTNEDELSFSKGDVIHVTRVEEGWEGTLNGRTGWFPNSNYVREVKASEKPV  
 SPKSGTLKSPKGFDTTAINKSYNVVVLQNILETENEYSKELQTVLSTYLRPLQTSKLSANISYLMGN  
 LEEICSFQQLVQSL EECTKLPEAQQRVGGCFLNLMQMKTLYLTYCANHPSAVNVLTEHSEELGEFMET  
 KGASSPGILVLTGLSKPFMRDKYPTLLKELERHMEYHTDRQDIQKSMAAFKNLSAQCEVRKRKELE  
 LQILTEAIRNWEADDIKTLGNVTYMSQVLQICAGSEEKNERYL LFPNVLLMLSASPRMSGFIYQKLP  
 TGMTITKLEDSENHRNAFEISGSMIERILVSCNNQQLQEWVHLQKQTKVTSVGNPTIKPHSVP SHTLP  
 SHPVTPSSKHADSKPAPLTPAYHTLPHPSHHGTPHTTINWGPLEPPKTPKPWSLSCLRPAPLRPSAALC  
 YKEDLSKSPKTMKLLPKRKPERKPSDEEFASRKSTAAL EEDAQILKVIEAYCTSAKTRQTLNSSSRKES  
 APQVLLPEEEKIIVEETKSNQTVIEEKSLVDTVYALKDEVQELRQDNKMKKSL EEEQRARKDLEKLV  
 KVLKNMNDPAWDETNL

**TRTRPLE** - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_003899

ORF Size: 1938 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: [NM\\_003899.5](#)

RefSeq Size: 5032 bp

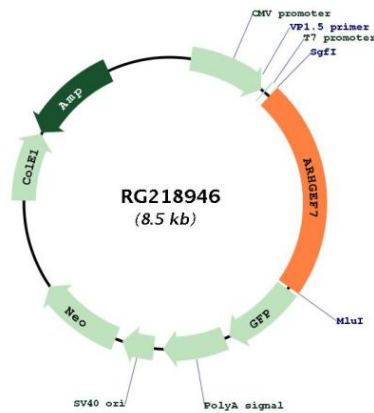
RefSeq ORF: 1941 bp

Locus ID: 8874

UniProt ID: [Q14155](#)

**Cytogenetics:** 13q34  
**Domains:** RhoGEF, SH3, PH  
**Protein Pathways:** Regulation of actin cytoskeleton  
**Gene Summary:** This gene encodes a protein that belongs to a family of cytoplasmic proteins that activate the Ras-like family of Rho proteins by exchanging bound GDP for GTP. It forms a complex with the small GTP binding protein Rac1 and recruits Rac1 to membrane ruffles and to focal adhesions. Multiple alternatively spliced transcript variants encoding different isoforms have been observed for this gene. [provided by RefSeq, Mar 2016]

**Product images:**



Circular map for RG218946