

## Product datasheet for **RG218798**

### ARHGEF7 (NM\_145735) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF7 (NM_145735) 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:**

>RG218798 representing NM\_145735  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAATTCGCGGAGCAAACCGTTACGTGGCTCATCACTCTGGGGTGTGGAGTCGCCAAAAAACCA  
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**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

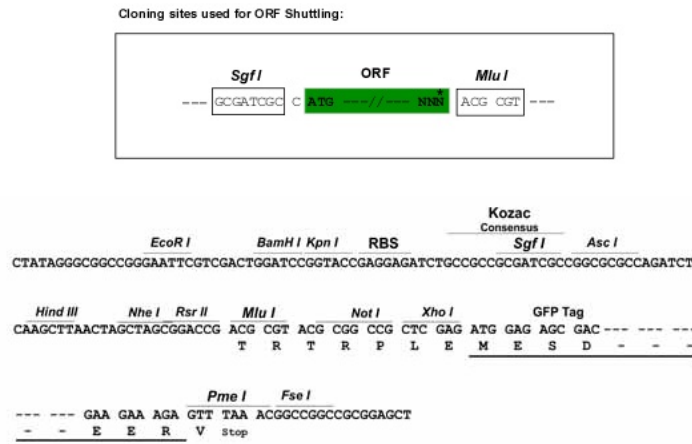
**Protein Sequence:** >RG218798 representing NM\_145735  
 Red=Cloning site Green=Tags(s)

MNSAEQVTWLITLGVLESPKKTISDPEGFLQASLKDGVVLCRLLELLPGTIEKVYPEPRSESECLSNIREFLRGGASLRLETFDANDLYQGQNFNKVLSLVTLNKVTADIGLGSDSVCARPSSHRIKSFDSLGSQSLHTRTSKLFQGGYRSLDMTNSNNQLVVRAKFNFQQTNEDELSFSGGDVIHVTRVEEGGWEGTLNGRTGWFPSNYVREVKASEKPVSPKSGTLKSPPKGFDTTAINKSYYNVVLQNILETENEYSKELQTVLSTYLRPLQTSEKLSANISYLMGNLEEICSFQQMLVQSLEECTKLPEAQQRVGGCFLNLMQMKTLYLTYCANHPSAVNVLTEHSEELGEFMETKGASSPGILVLTGLSKPFMRDKYPTLLKELEHRHMEDYHTRQDIQKSMAAFKNLSAQQCQEVKRKELELQILTEAIRNWEQDDIKTLGNVTYMSQVLIQCAGSEEKNERYLLLFPNVLLMLSASPRMSGFIYQGKLPPTGMTITKLESENHRNAFEISGSMIERILVSCNNQQDLQEWVHLQKQTKVTSVGNPTIKPHSVPSHTLPSPVTPSSKHADSKPAPLTPAYHTLPHPSHHGTPHTTINWGPLEPPKTPKPWSLSCLRPAAPLRPSAALCYKEDLSKSPKTMKLLPKRKPERKPSDEEFASRKSTAAL EEDAQILKVEIAYC TSAKTRQTLNSTWQGTDLMHNHVLADDDQPSLDSLGRSSLSRLEPSDLSEDSYDSIWT AHSYRMGSTS RKSCCSYISHQN

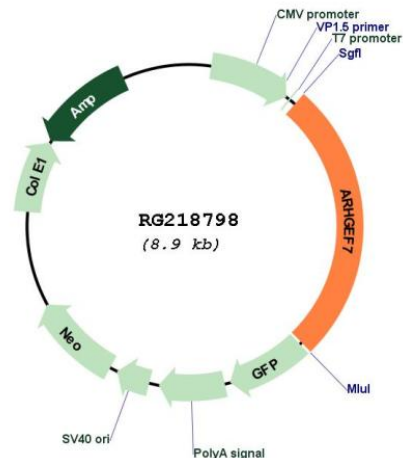
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



## Plasmid Map:



ACCN: NM\_145735

ORF Size: 2346 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\\_145735.3](#)

RefSeq Size: 5304 bp

RefSeq ORF: 2349 bp

Locus ID: 8874

UniProt ID: [Q14155](#)

Cytogenetics: 13q34

**Domains:** RhoGEF, SH3, CH, 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]