

Product datasheet for **RC218798**

ARHGEF7 (NM_145735) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ARHGEF7 (NM_145735) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | ARHGEF7 |
| Synonyms: | BETA-PIX; COOL-1; COOL1; Nbla10314; P50; P50BP; P85; P85COOL1; P85SPR; PAK3; PIXB |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide
Sequence:

>RC218798 representing NM_145735
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAATTCGCGGAGCAAACCGTTACGTGGCTCATCACTCTGGGGTGTGGAGTCGCCAAAAAACCA
TCTCGGACCCGGAGGGCTTTCTGCAAGCGTCGCTGAAGGATGGGTCTCTGCAAGGCTGCTGGAGCG
CCTGCTCCCCGGGACCATCGAGAAAGTCTACCCGAGCCCGGAGCGAGAGCGAGTGCCTGAGCAACATC
CGCGAGTTCCTGCGGGCTGCGGGCTTCCCTGCGGCTGGAGACGTTTGATGCAAATGATTTGTATCAGG
GGCAGAAATTTAAACAAGTCTCAGTTCCTTAGTGACTCTAAATAAAGTAAACAGCAGACATCGGGCTGGG
GAGTGACTCCGTGTGTGCCCGCCCTCGTCTACCGCATAAAGTCTTTTGACTCCCTGGATCACAGTCT
TTGCACACTCGGACTTCAAACCTGTTCCAGGGCCAGTATCGGAGTTTGGACATGACCGATAATAGCAACA
ATCAACTGGTAGTAAGAGCAAAGTTAACTTCCAGCAGACCAATGAGGACGAGCTTCTCTCAAAGG
AGACGTATCCATGTACCCGTGTGGAAGAGGGAGGCTGGTGGGAGGGCACACTCAACGGCCGGACCGGC
TGGTTCCCGCAACTACGTGCGCGAGGTCAGGGCCAGCGAGAAGCCTGTGTCTCCCAAATCAGGAACAC
TGAAGAGCCCTCCCAAAGGATTTGATACGACTGCCATAAAACAAAAGCTATTACAATGTGGTGTACAGAA
TATTTTAGAAACAGAAAATGAATATTCTAAAGAACTTCAGACTGTGCTTTCAACGTACCTACGGCCATTG
CAGACCACTGAGAAGTTAAGTTCAGCAAACATTTCATATTTAATGGGAAATCTAGAAGAAATATGTTCTT
TCCAGCAAATGCTCGTACAGTCTTTAGAAGAATGCACCAAGTTGCCCGAAGCTCAGCAGAGAGTCCGAGG
CTGCTTTTTAAACCTGATGCCACAGATGAAAACCTGTACCTCACGATTTGTGCCAATCACCTTCTGCA
GTGAATGCTCCTCACGGAACACAGTGAGGAGTTGGGGAGTTCATGGAGACCAAAGGTGCCAGCAGCCCTG
GGATTCGTGCTGACCACGGCCCTGAGCAAACCTTTCATGCGCCTGGATAAATACCTACGCTGCTCAA
AGAGCTCGAGAGACACATGGAGGATTATCATACAGATAGACAAGATATTCAAAAATCCATGGCTGCCTTC
AAAAACCTTTAGCCCAATGTCAAGAAGTCCGGAAGAGGAAAGAGCTTGAGCTGCAGATCCTGACGGAAG
CCATCCGGAAGTGGGAGGGCGATGACATTTAAACTCTGGGCAACGTCACTTACATGTCCCAGGCTCTGAT
TCAGTGTGCCGGAAGTGAGGAAAAGAATGAAAGATATCTTCTACTCTTCCCAAATGTTTTGCTAATGTTG
TCTGCCAGTCTAGGATGAGTGGCTTTATCTATCAGGGAAAGCTTCAACGACAGGAATGACAATCACAA
AGCTTGAGGACAGTGAAAATCATAGAAATGCATTTGAAATATCAGGGAGCATGATTGAGCGGATATTAGT
GTCGTGCAACAACCAGCAGGATCTGCAGGAATGGGTGGAGCACCTACAGAAGCAAACGAAGGTACGTCT
GTGGGAAACCCACCATAAAGCCTCATTAGTGCATCTCATACCCTCCCCTCCCACCCGGTCACTCCGT
CCAGCAAGCACGACAGCAAGCCCGCCGCTGACGCCCGCTACCACAGCTGCCCAACCCCTCCCA
CCACGGCACCCCGCACACCACCTCAACTGGGGACCCCTGGAGCCTCCGAAAACACCCAAGCCCTGGAGC
CTGAGTGCCTGCGGCCCGCCCTCCCCTCCGGCCCTCAGCTGTCTCTGCTACAAGGAGGATCTTAGTA
AGAGCCCTAAGACCATGAAAAGCTGCTGCCAAAGCGCAAACCTGAACGGAAGCCTTCAGATGAGGAGTT
CGCGTCCCGGAAAAGCACAGTCTTTGGAAGAAGATGCTCAGATTCTGAAAAGTCATTGAAGCTTACTGC
ACCAGCGCCAAAACAAGGCAAACACTCAATTCACATGGCAAGGCACTGACCTGATGCATAATCACGTCT
TGGCTGATGATGACCAACCAAGCCTAGACTCCCTGGGGCGTCGCAGTAGCCTTTCTGTTTGGAGCCTTC
AGACCTCTCGGAAGACTCTGACTATGACAGTATATGGACAGCCCATAGTTACAGAATGGGTTCTACATCT
CGTAAGAGCTGTTGCTCATATATCTCTCACCAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218798 representing NM_145735
Red=Cloning site Green=Tags(s)

MNSAEQVTWLITLGVLESPKKTISDPEGFLQASLKDGVVLCRLLELLPGTIEKVYPEPRSESECLSNIREFLRGGASLRLETFDANDLYQGQNFNKVLSLVTLNKVTADIGLGSDSVCARPSSHRIKSFDSLGSQSLHTRTSKLFQGGYRSLDMTNSNNQLVVRAKFNFQQTNEDELSFSGGDVIHVTRVEEGGWEGTLNGRTGWFPSNYVREVKASEKPVSPKSGTLKSPPKGFDTTAINKSYYNVVLQNILETENEYSKELQTVLSTYLRPLQTSEKLSANISYLMGNLEEICSFQQMLVQSLEECTKLPEAQQRVGGCFLNLMQMKTLYLTYCANHPSAVNVLTEHSEELGEFMETKGASSPGILVLTGLSKPFMRDKYPTLLKELEHRMEDYHTDRQDIQKSMAAFKNLSAQCCQEVRRKRELELQILTEAIRNWEQDDIKTLGNVTYMSQVLIQCAGSEEKNERYLLLFPNVLLMLSASPRMSGFIYQGKLPPTGMTITKLESENHRNAFEISGSMIERILVSCNNQQDLQEWVEHLQKQTKVTSVGNPTIKPHSVPSHTLPSHPVTPSSKHADSKPAPLTPAYHTLPHPSHHGTPHTTINWGPLEPPKTPKPWSLSCLRPAAPLRPSAALCYKEDLSKSPKTMKLLPKRKPERKPSDEEFASRKSTAAL EEDAQILKVEIAYC
TSAKTRQTLNSTWQGTDLMHNHVLADDDQPSLDSLGRSSLSRLEPSDLS ESDSDYDSIWAHSYRMGSTSRKSCCSYISHQN

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6678_a09.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


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

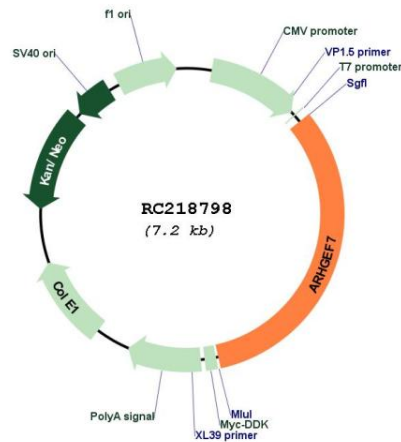
Domains: RhoGEF, SH3, CH, PH

Protein Pathways: Regulation of actin cytoskeleton

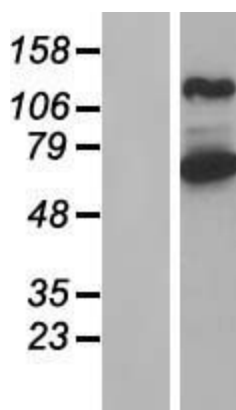
MW: 87.6 kDa

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]

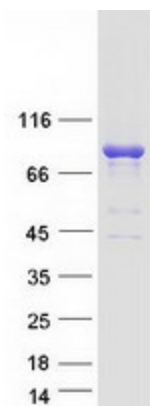
Product images:



Circular map for RC218798



Western blot validation of overexpression lysate (Cat# [LY407867]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218798 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARHGEF7 protein (Cat# [TP318798]). The protein was produced from HEK293T cells transfected with ARHGEF7 cDNA clone (Cat# RC218798) using MegaTran 2.0 (Cat# [TT210002]).