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Product datasheet for SC117668

ARHGEF7 (NM_003899) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF7 (NM_003899) Human Untagged Clone
Tag:	Tag Free
Symbol:	ARHGEF7
Synonyms:	BETA-PIX; COOL-1; COOL1; Nbla10314; P50; P50BP; P85; P85COOL1; P85SPR; PAK3; PIXB
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC117668 sequence for NM_003899 edited (data generated by NextGen Sequencing)

ATGACCGACAATAGCAACAATCAACTGGTAGTAAGAGCAAAGTTTAACTTCCAGCAGACC
AATGAGGACGAGCTTTCCTTCTCAAAAGGAGACGTCATCCATGTCACCCGTGTGGAAGAG
GGAGGCTGGTGGGAGGGCACACTCAACGGCCGGACCGGCTGGTTCCCCAGCAACTACGTG
CGCGAGGTCAAGGCCAGCGAGAAGCCTGTGTCTCCCAAATCAGGAACACTGAAGAGCCCT
CCCAAAGGATTTGATACGACTGCCATAAACAAAAGCTATTACAATGTGGTGCTACAGAAT
ATTTTAGAAACAGAAAATGAATATTCTAAAGAACTTCAGACTGTGCTTTCAACGTACCTA
CGGCCATTGCAGACCAGTGAGAAGTTAAGTTCAGCAAACATTTCATATTTAATGGGAAAT
CTAGAAGAAATATGTTCTTTCCAGCAAATGCTCGTACAGTCTTTAGAAGAATGCACCAAG
TTGCCCGAAGCTCAGCAGAGAGTCGGAGGCTGCTTTTTAAACCTGATGCCACAGATGAAA
ACCCTGTACCTCACGTATTGTGCCAATCACCCTTCTGCAGTGAATGTCCTCACGGAACAC
AGTGAGGAGTTGGGGGAGTTCATGGAGACCAAAGGTGCCAGCAGCCCTGGGATTCTCGTG
CTGACCACGGGCCTGAGCAAACCCTTCATGCGCCTGGATAAATACCCTACGCTGCTCAAA
GAGCTCGAGAGACACATGGAGGATTATCATACAGATAGACAAGATATTCAAAAATCCATG
GCTGCCTTCAAAAACCTTTCAGCCCAATGTCAAGAAGTCCGGAAGAGGAAAGAGCTTGAG
CTGCAGATCCTGACGGAAGCCATCCGGAACTGGGAGGGCGATGACATTAAAACTCTGGGC
AACGTCACTTACATGTCCCAGGTCCTGATTCAGTGTGCCGGAAGTGAGGAAAAGAATGAA
AGATATCTTCTACTCTTCCCAAATGTTTTGCTAATGTTGTCTGCCAGTCCTAGGATGAGT
GGCTTTATCTATCAGGGAAAGCTTCCAACGACAGGAATGACAATCACAAAGCTTGAGGAC
AGTGAAAATCATAGAAATGCATTTGAAATATCAGGGAGCATGATTGAGCGGATATTAGTG
TCGTGCAACAACCAGCAGGATCTGCAGGAATGGGTGGAGCACCTACAGAAGCAAACGAAG
GTCACGTCTGTGGGAAACCCCACCATAAAGCCTCATTCAGTGCCATCTCATACCCTCCCC
TCCCACCCGGTCACTCCGTCCAGCAAGCACGCAGACAGCAAGCCCGCGCCGCTGACGCCC
GCCTACCACACGCTGCCCCACCCCTCCCACCACGGCACCCCGCACACCACCATCAACTGG
GGACCCCTGGAGCCTCCGAAAACACCCAAGCCCTGGAGCCTGAGCTGCCTGCGGCCCGCG
CCTCCCCTCCGGCCCTCAGCTGCTCTCTGCTACAAGGAGGATCTTAGTAAGAGCCCTAAG
ACCATGAAAAAGCTGCTGCCCAAGCGCAAACCTGAACGGAAGCCTTCAGATGAGGAGTTC
GCGTCCCGGAAAAGCACAGCTGCTTTGGAAGAAGATGCTCAGATTCTGAAAGTCATTGAA
GCTTACTGCACCAGCGCCAAAACAAGGCAAACACTCAATTCAAGTTCACGCAAAGAATCT
GCTCCACAAGTTTTGCTTCCAGAAGAAGAGAAAATTATAGTGGAAGAAACTAAAAGTAAT
GGTCAGACAGTGATAGAAGAAAAGAGTCTTGTGGATACCGTATATGCATTAAAGGATGAA
GTTCAAGAATTAAGACAGGACAACAAAAAGATGAAGAAATCTCTAGAGGAAGAACAGAGA
GCCCGCAAAGACCTGGAGAAGCTGGTGAGGAAAGTCCTGAAGAACATGAATGATCCTGCC
TGGGATGAGACCAATCTATAA

Clone variation with respect to NM_003899.3
9 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003899 unedited
CGTTANCATTTGTATACGACTCATATAGGCGGCCGCGAATTCGGCACGAGGGCAAACCGT
TACGTGGCTCATCACTCTGGGGGTGCTGGAGTCGCCCAAAAAAACCATCTCGGACCCGGA
GGGCTTTCTGCAGGCGTCGCTGAAGGATGGGGTGGTCCTCTGCAGGCTGCTGGAGCGCCT
GCTCCCCGGGACCATCGAGAAAGTCTACCCCGAGCCCCGGAGCGAGAGCGAGTGCCTGAG
CAACATCCGCGAGTTCCTGCGCGGCTGCGGGGCTTCCCTGCGGCTGGAGACGTTTGATGC
AAATGATTTGTATCAGGGGCAGAATTTTAACAAGGTCCTCAGTTCCTTAGTGACTCTAAA
TAAAGTAACAGCAGACATCGGGCTGGGGAGTGACTCCGTGTGTGCCCGGCCCTCGTCTCA
CCGCATAAAGTCTTTTGACTCCCTTGGATCACAGTCTTTGCACACTCGGACTTCAAAACT
GTTCCAGGGCCAGTATCGGAGTTTGGACATGACCGACAATAGCAACAATCAACTGGTAGT
AAGAGCAAAGTTTAACTTCCAGCAGACCAATGAGGACGAGCTTTCCTTCTCAAAGGAGAC
GTCATCCATGTCACCCGTGTGGAATAGGAGGCTGTGGNGGAAGGGCACACTCAACGGCCG
GACCGGCTGGTTCCCAGCAACTACGTGCGCGAGGTCAAGGCCAGCGAGAAGCCTGTGTCT
CCCATATCATGACACTGAAGAGCCCTCCAAAGGATTTGATACGACTGCCATANNACAAAC
ATTACAATGTGGTGCTACAGAATATTTTAGAAACAGATNATGAATATTCTAAAGAATTNC
AGACTGTGCTTTTCACGTACCTACGGCCATTGCAGACANTGGAAAAAAGTTAAGTTCAGC
ANACATTTCTNATTTAATGGNGAATNCTAGAAGAATTAATGCCCCTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_003899 unedited
TGCTCTGGACCGGCGGCCGCAATCTAGGGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTG
ACATAAGAAAAAAATCAGTTTAATAATTACAACAGTGTAGCATCAACATTGTAGTAGTCA
ACACTAGGACATTGTCTGTGACATTTAAATTAGGAGTTTCTCCACACTTGTCAACAGGCG
CCCTGGGTGTCCCAGAGAAGTGAAGAAATGATTGGCATTAAGGAGTCCACACAACCAGGG
CAGGCATTCAAGGTCCCAGACGCCCAGTGCATGTGGACAAGCACAGACGCCACTGAGTGT
GAAGGAACGAGCTTCTGATGCTACATTCCAACATCGCTGAAAACTGAAAGTGCTTCACAT
CTACAGGATAAGAAATGGCTTCATCTCCTCATCCATACAAGGTGAGAGCAAAGGAGTAAC
CCTCGGGCAAATCGTGGCCCCTTTAAACGTTTATATCAAGTTCCCACCCCCTTGGGAGGT
CACACGGTGAAACAGACACAGTTATATACAACAGGGCAGGTTTTTAAAAAGAGTTGCTCT
CAGACGCATTTTTCCTGCTCCCTAAAAAGCCGAGGAAGATACTGGATCCACAGAAAGAAA
AGGCAATGCCGTAACATGAGGCCCTCATGGCCGCACCGTCCAGGGGAAGGGCTGNTAAAA
ACACAAGTATTCTTGTNGAATACTTCGATCTGAGCATTAAGGCAGGTCTGCAGGAGATCC
GTCCTGGGGACTCCGACAGCAACGCTACCGGCTTCGAGAGGACAGTTAATGTCGCCCTCC
CGCAGAGGGGCCGAGAGATCAAACAAGAGTTGTTCCTGAGTTAAAAACTGCTACACAGCA
AACTCCCATAACTCAAGGTGAATGTTTTCCACTGGCATGCTTTACGCATACCAAAAATAA
CTTGTAAACTCAGCCTACCAAAAGAAGTGTTGACTCTGCTGGGCCCCCTGATGAATAACC
GCTAN

Restriction Sites: NotI-NotI

ACCN: NM_003899

Insert Size: 5130 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_003899.2, NP_003890.1
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] Transcript Variant: This variant (1) differs in the 5' UTR, lacks a portion of the 5' coding region, and contains a different 3' coding region and 3' UTR, compared to variant 1. It initiates translation at a downstream start codon. Variants 1, 5, 6, 18, and 19 all encode isoform a (also known as p85Cool-1), which has a shorter N-terminus and a longer and distinct C-terminus, compared to isoform c. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.