

Product datasheet for **RC225914**

ARHGEF3 (NM_001128616) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	ARHGEF3
Synonyms:	GEF3; STA3; XPLN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence: >RC225914 representing NM_001128616
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGATTGAGGTTTGCCACCACAATTGGCTACTTTGGCTTTGCCCATCAAAATTTGGTATCTTCATGTGCT
 GTCTAGCATCTACTACAGGTACAGTGGAGCTTAGGAGGACAAGGGAGCCTAGTAATAAACGGGTCAAACC
 CCTTTCCCGAGTCACGTCGCTAGCAAACCTCATCCCGCCCGTGAAGGCCACGCCATTAAGCGCTTCAGT
 CAAACCTGCAGCGCTCCATTAGCTTCCGAGTGAGAGCCGCCCTGACATCTCGCCCCCGACCTGGT
 CCAGAAATGCCGCCCTCGAGCACGAAACGGAGAGATAGCAAGCTGTGGAGTGAGACCTTCGATGTGTG
 CGTCAATCAGATGCTTACATCCAAGGAAATCAAACGTGAGGAGCGATCTTTGAGCTTTCCCAAGGAGAA
 GAAGACTTGATAGAAGACTTGAAATAGCAAAAAAGGCCTATCATGACCCCATGCTGAAACTCTCCATAA
 TGACAGAACAAGAGTTGAATCAAAATTTTGAACACTGGACTCTAATTCCTCTACATGAAGAGCTCCT
 TAGTCAGTTCGAGATGTTAGGAAGCCTGATGGCTCGACTGAACATGTTGGTCCCATCTCGTGGGCTGG
 CTCCCTTGCTCAGCTCCTATGATAGCTACTGCAGCAATCAAGTAGCCGCCAAAGCTCTGCTGGACCACA
 AAAAGCAAGATCACCGAGTCCAGGATTTCTACAGCGATGTTTGAATCCCCCTTTAGCCGCAAACTAGA
 TCTCTGGAATTTCTCGATATTCGAAGAAGCCGCTGGTAAATACCTCTGCTTCTCCGAGAAATCTTG
 AGGCACACACCAATGATAATCCAGATCAGCAGCACTTGAAGAAGCTATAAATATCATTAGGGAATTG
 TGGCAGAAATCAACACCAAGACTGGTGAATCTGAATGCCGCTATTATAAAGAGCGGCTCTTTACTTGGA
 AGAAGGCCAGAAAGACTCCCTGATCGACAGCTCTCGAGTCTTGTGTTGTCATGGTGAAGTGAAGAACAAT
 CGGGGCGTGAAACTGCATGTTTTCTGTTCCAAGAAGTCTTGTGATCACTCGAGCCGTACCCACAATG
 AGCAGCTTTGCTACCAGCTGTACCGTCAGCCAATCCCGTGAAAGACCTCTGCTGGAAGACCTCCAGGA
 TGGAGAAGTGAGGCTGGGTGGCTCCCTGCGAGGGGCATTGAGCAACAATGAGAGAATAAAAACTTCTTC
 AGAGTCAGTTTCAAAATGGATCCCAAAGTCAGACCCACTCGCTACAAGCCAATGACACTTTCAACAAAC
 AGCAGTGGCTTAAGTGTATTCGTCAAGCCAAGAAACAGTTTTGTGTGCTGCCGGGCAAGCTGGGGTGT
 TGAATCCGAGGATCGTTCTAATCCACCACCGGAGCAGAGAGCTACAGGGAGAAACAAACTTGAG
 CAGATGGACCAATCGGACAGTGAGTCAGACTGTAGTATGGACACGAGTGAGGTGAGCCTCGACTGTGAGC
 GCATGGAACAGACAGACTCTTCTGTGGAACAGCAGGCACGGTGAAGTAACGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC225914 representing NM_001128616
 Red=Cloning site Green=Tags(s)

MIEVCHHNWLLWLCPKFGIFMCLASTTGQELRRRTREPSNKRKPLSRVTSANLIPPVKATPLKRF
 QTLQRSISFRSESRPDILAPRWSRNAAPSSTKRRDSKLWSETFDVCVNQLTSKEIKRQEAIFFLSQGE
 EDLIEDLKLAKKAYHDPMLKLSIMTEQELNQIFGTLDSLIPHEELLSQLRDVRKPDGSTEHVGPILVGW
 LPCLSSYDSYCSNQVAAKALLDHKKQDHRVQDFLQRCLESPFSRKLDLWNFLDIPRSRLVKYPLLLREIL
 RHTPNNDPDQHLLEAINIIQIVAEINTKTGESECRYKERRLLYLEEGQKDSLIDSSRVLCCGHELKNN
 RGVKLHVFLFQEVLVITRAVTHNEQLCYQLYRQPIPVKDLLLEDLQDGEVRLGGSLRGAFSNNERIKNFF
 RVSFKNGSQSTHSLQANDTFNKQQLNLCIRQAKETVLCAGQAGVLDSEGSFLNPTTGSRELQGETKLE
 QMDQSDSESDCSMDTSEVSLDCERMEQTDSSCGNSRHGESNV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8065_h03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001128616

ORF Size: 1596 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001128616.2](#)

RefSeq ORF: 1599 bp

Locus ID: 50650

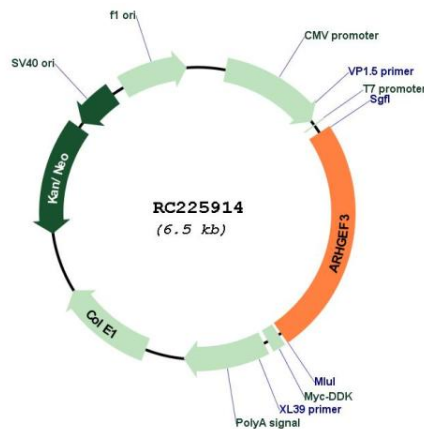
UniProt ID: [Q9NR81](#)

Cytogenetics: 3p14.3

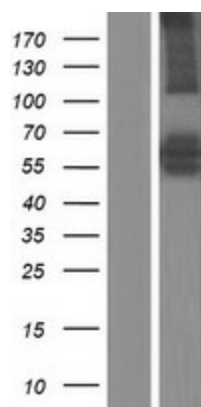
MW: 60.6 kDa

Gene Summary: Rho-like GTPases are involved in a variety of cellular processes, and they are activated by binding GTP and inactivated by conversion of GTP to GDP by their intrinsic GTPase activity. Guanine nucleotide exchange factors (GEFs) accelerate the GTPase activity of Rho GTPases by catalyzing their release of bound GDP. This gene encodes a guanine nucleotide exchange factor, which specifically activates two members of the Rho GTPase family: RHOA and RHOB, both of which have a role in bone cell biology. It has been identified that genetic variation in this gene plays a role in the determination of bone mineral density (BMD), indicating the implication of this gene in postmenopausal osteoporosis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC225914



Western blot validation of overexpression lysate (Cat# [LY426978]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225914 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).