OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC216784

FARP2 (NM_014808) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FARP2 (NM_014808) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FARP2
Synonyms:	FIR; FRG; PLEKHC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC216784 representing NM_014808
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGGAGATAGAAGGAACATACAGAGTCCTGCAGACTGCAGGGATGCGCTTGGGTGCCCAGACCCCTG
TGGGAGTTAGCACCCTTGAGCCTGGGCAGACTCTCTTGCCCAGAATGCAAGAGAAGCACCTGCACCTCAG
AGTAAAGCTGCTGGACAACACCATGGAAATATTTGACATTGAGCCTAAATGCGATGGCCAGGTATTACTG
ACACAAGTGTGGAAGCGTTTAAACCTGGTAGAATGTGACTACTTCGGGATGGAGTTTCAAAATACTCAGT
CCTACTGGATTTGGCTTGAACCTATGAAACCCATCATTAGGCAAATACGAAGGCCAAAGAATGTGGTGCT
TCGCCTAGCTGTAAAATTTTTTCCACCTGATCCTGGTCAGCTACAAGAAGAATATACAAGATACTTGTTT
GCCTTGCAACTTAAGAGAGACCTGCTGGAAGAGCGTTTGACCTGTGCTGACACCACAGCGGCCCTTCTCA
CGTCCCATCTCCTGCAGTCGGAAATAGGAGATTACGATGAAACGCTGGACCGAGAGCACCTCAAAGTGAA
CGAGTATTTGCCTGGCCAGCAGCACTGCCTTGAGAAGATACTAGAATTCCATCAGAAGCACGTGGGCCAG
ACACCTGCTGAGTCGGATTTCCAGGTGCTCGAAATTGCTCGAAAGTTGGAAATGTACGGCATCAGATTTC
ACATGGCTTCTGACAGGGAAGGAACCAAGATTCAACTGGCAGTTTCCCACATGGGTGTACTCGTGTTCCA
GGGCACCACCAAAATCAACACTTTCAACTGGTCCAAGGTCCGTAAACTAAGCTTCAAGAGGAAAAGATTT
CTTATCAAACTTCATCCAGAGGTTCATGGACCTTACCAGGACACATTAGAATTTTTGTTGGGTAGTAGAG
ATGAATGTAAGAACTTCTGGAAGATTTGTGTGGAGTATCACACCTTTTTTAGACTTTTGGACCAACCTAA
GCCAAAAGCAAAAGCCGTCTTCTTCAGCCGGGGCTCCTCCTTCAGATACAGTGGAAGAACTCAGAAACAA
CTAGTAGATTATTTCAAAGACAGTGGAATGAAGAGAATTCCATATGAAAGAAGGCACAGCAAGACCCACA
CGTCCGTTCGAGCTCTGACTGCAGACCTACCAAAACAGAGCATCTCATTCCCCGAGGGATTGAGGACTCC
TGCCTCCCCATCTTCAGCGAATGCCTTTTACTCGCTCTCTCCCTCCACTCTGGTCCCCTCTGGCCTGCCA
GAGTTTAAGGACAGCAGCAGCTCCCTCACAGATCCCCAGGTTTCCTACGTCAAGAGTCCAGCTGCAGAGA
GGCGCAGTGGAGCAGTGGCTGGAGGCCCCGACACACCATCGGCCCAGCCCCTCGGGCCCCCCGCACTCCA
GCCTGGTCCAGGCCTTTCCACGAAGAGTCCTCAGCCTTCTCCCTCCAGCCGGAAGAGCCCCCTGAGTCTG

View online »

AGCCCTGCATTTCAGGTGCCTTTGGGCCCAGCTGAACAGGGCTCATCCCCACTCCTGAGCCCTGTCCTCA
GTGATGCTGGCGGAGCCGGGATGGACTGCGAGGAGCCCAGACACAAGCGCGTGCCTGCAGACGAGGCCTA
CTTCATAGTCAAAGAGATTCTCGCTACAGAACGAACATACCTCAAGGATTTAGAAGTTATTACCGTGTGG
TTCCGCAGCGCAGTGGTGAAGGAGGACGCCATGCCTGCGACTCTGATGACGCTGCTCTTCTCCAACATCG
ATCCCATCTATGAGTTCCACAGAGGCTTCCTGCGCGAGGTGGAGCAGAGGCTGGCACTCTGGGAAGGGCC
CTCCAAAGCCCACACAAAAGGCAGTCATCAACGAATCGGGGACATCCTGCTCAGGAACATGCGCCAGTTA
AAGGAGTTTACCAGCTACTTCCAAAGACATGACGAGGTCCTAACAGAACTGGAAAAGGCTACCAAACGCT
GTAAGAAGTTGGAGGCAGTGTACAAGGAGTTTGAGCTGCAGAAGGTCTGCTACTTGCCTCTCAACACGTT
CCTGCTGAAGCCCATCCAGCGGCTGCTGCACTACCGCCTGCTGCTGCGCCGCCTATGCGGACATTACAGC
CCCGGGCACCATGACTACGCTGACTGCCATGACGCCCTGAAAGCCATCACAGAGGTGACCACCACACTAC
AGCACATTCTCATCCGGCTGGAGAACCTGCAGAAGCTAACGGAGCTGCAGCGGGACCTGGTGGGCATAGA
GAACCTCATTGCTCCTGGCAGGGAGTTCATCCGTGAGGGCTGCCTTCACAAGCTCACCAAGAAGGGCCTG
CAGCAGAGGATGTTTTTTCTGTTCTCAGATATGTTGCTGTACACAAGCAAAGGAGTTGCAGGGACCAGCC
ACTTCCGGATCCGGGGCCTCCTTCCCCTCCAAGGCATGCTGGTGGAAGAAAGTGATAACGAGTGGTCTGT
TCCACACTGTTTCACCATCTACGCGGCTCAGAAAACAATCGTGGTGGCAGCCAGCACTCGGCTGGAGAAA
GAGAAGTGGATGCTGGACCTGAACTCCGCGATCCAAGCAGCCAAGAGTGGCGGTGACACGGCCCCTGCAC
TGCCAGGCCGCACTGTGTGCACTCGTCCCCCCAGATCCCCCAACGAGGTATCTCTGGAGCAGGAGTCAGA
AGATGATGCTCGGGGTGTCCGCAGCTCCCTGGAGGGGCATGGCCAGCACCGGGCCAACACCACAATGCAC
GTGTGCTGGTACCGGAACACCAGCGTGTCCAGGGCAGACCACAGTGCAGCTGTCGAGAACCAGCTTTCAG
GATATCTGCTAAGAAAGTTCAAAAACAGTCATGGCTGGCAGAAGCTCTGGGTCGTCTTTACCAACTTCTG
TTTGTTCTTCTACAAAACTCATCAGGATGACTACCCACTGGCCAGCCTCCCGCTGCTGGGCTACAGCGTG
AGCATCCCCAGGGAGGCCGATGGCATACACAAAGACTATGTTTTCAAGCTCCAGTTCAAATCCCACGTCT
ACTTCTTCCGGGCTGAGAGCAAGTACACATTTGAAAGGTGGATGGAGGTGATCCAGGGGGCCAGCAGCTC
AGCCGGGAGGGCCCCAAGCATCGTGCAGGATGGCCCCCAACCCTCCTCAGGGCTGGAGGGGATGGTCAGG
GGGAAGGAGGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

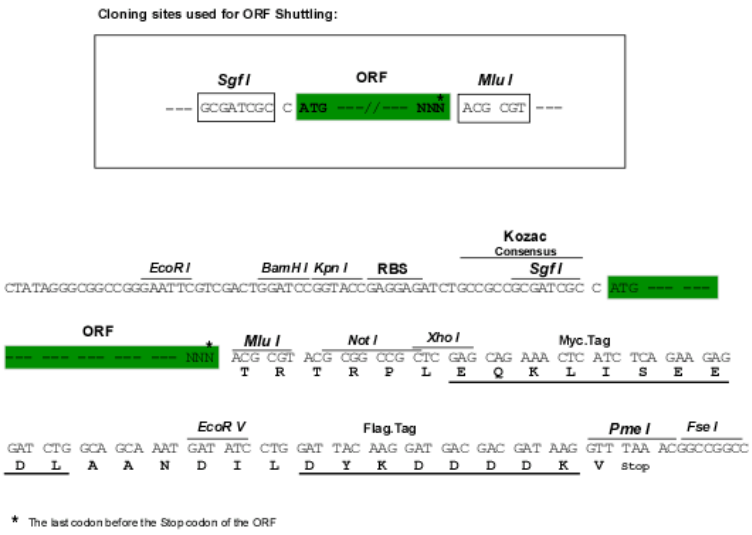
>RC216784 representing NM_014808
Red=Cloning site Green=Tags(s)

MGEIEGTYRVLQTAGMRLGAQTPVGVSTLEPGQTLLPRMQEKHLHLRVKLLDNTMEIFDIEPKCDGQVLL
TQVWKRLNLVECDYFGMEFQNTQSYWIWLEPMKPIIRQIRRPKNVVLRLAVKFFPPDPGQLQEEYTRYLF
ALQLKRDLLEERLTCADTTAALLTSHLLQSEIGDYDETLDREHLKVNEYLPGQQHCLEKILEFHQKHVGQ
TPAESDFQVLEIARKLEMYGIRFHMASDREGTKIQLAVSHMGVLVFQGTTKINTFNWSKVRKLSFKRKRF
LIKLHPEVHGPYQDTLEFLLGSRDECKNFWKICVEYHTFFRLLDQPKPKAKAVFFSRGSSFRYSGRTQKQ
LVDYFKDSGMKRIPYERRHSKTHTSVRALTADLPKQSISFPEGLRTPASPSSANAFYSLSPSTLVPSGLP
EFKDSSSSLTDPQVSYVKSPAAERRSGAVAGGPDTPSAQPLGPPALQPGPGLSTKSPQPSPSSRKSPLSL
SPAFQVPLGPAEQGSSPLLSPVLSDAGGAGMDCEEPRHKRVPADEAYFIVKEILATERTYLKDLEVITVW
FRSAVVKEDAMPATLMTLLFSNIDPIYEFHRGFLREVEQRLALWEGPSKAHTKGSHQRIGDILLRNMRQL
KEFTSYFQRHDEVLTELEKATKRCKKLEAVYKEFELQKVCYLPLNTFLLKPIQRLLHYRLLLRRLCGHYS
PGHHDYADCHDALKAITEVTTTLQHILIRLENLQKLTELQRDLVGIENLIAPGREFIREGCLHKLTKKGL
QQRMFFLFSDMLLYTSKGVAGTSHFRIRGLLPLQGMLVEESDNEWSVPHCFTIYAAQKTIVVAASTRLEK
EKWMLDLNSAIQAAKSGGDTAPALPGRTVCTRPPRSPNEVSLEQESEDDARGVRSSLEGHGQHRANTTMH
VCWYRNTSVSRADHSAAVENQLSGYLLRKFKNSHGWQKLWVVFTNFCLFFYKTHQDDYPLASLPLLGYSV
SIPREADGIHKDYVFKLQFKSHVYFFRAESKYTFERWMEVIQGASSSAGRAPSIVQDGPQPSSGLEGMVR
GKEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN:	NM_014808
ORF Size:	3162 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_014808.4
RefSeq Size:	3997 bp
RefSeq ORF:	3165 bp
Locus ID:	9855
UniProt ID:	O94887

Cytogenetics: 2q37.3

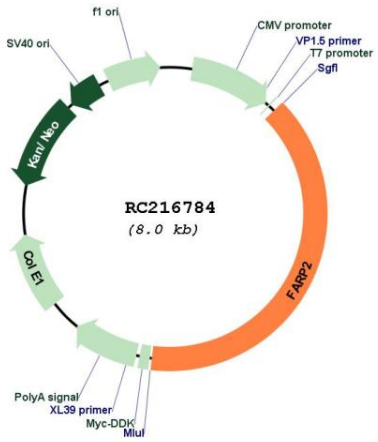
Domains: RhoGEF, B41, PH

Protein Pathways: Adherens junction

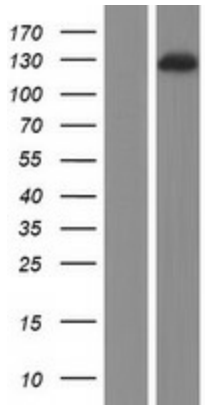
MW: 119.7 kDa

Gene Summary: Functions as guanine nucleotide exchange factor that activates RAC1. May have relatively low activity. Plays a role in the response to class 3 semaphorins and remodeling of the actin cytoskeleton. Plays a role in TNFSF11-mediated osteoclast differentiation, especially in podosome rearrangement and reorganization of the actin cytoskeleton. Regulates the activation of ITGB3, integrin signaling and cell adhesion (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC216784



Western blot validation of overexpression lysate (Cat# [LY415017]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216784 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).