

## Product datasheet for **RC239195**

### **FARP2 (NM\_001282983) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FARP2 (NM_001282983) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FARP2
Synonyms:	FIR; FRG; PLEKHC3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>RC239195 representing NM\_001282983  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGGGGAGATAGAAGGAACATACAGATCCTGCAGACTGCAGGGATGCGCTTGGGTGCCAGACCCTG  
TGGGAGTTAGCACCTTGAGCCTGGGCAGACTCTTTGCCAGAATGCAAGAGAAGCACCTGCACCTCAG  
AGTAAAGCTGCTGGACAACCATGGAATATTTGACATTGAGCCTAAATGCGATGGCCAGGTATTACTG  
ACACAAGTGTGGAAGCGTTAAACCTGGTAGAATGTGACTACTTCGGGATGGAGTTTCAAAATACTCAGT  
CCTACTGGATTTGGCTTGAACCTATGAAACCCATCATTAGGCAAATACGAAGGCCAAAGAATGTGGTGCT  
TCGCTAGCTGTAAAATTTTTCCACCTGATCCTGGTCAGCTACAAGAAGAATATACAAGATACTGT  
GCCTTGAACCTAAGAGAGACCTGCTGGAAGAGCGTTTGACCTGTGCTGACACCACAGCGGCCCTTCTCA  
CGTCCCATCTCCTGCAGTCGGAATAGGAGATTACGATGAAACGCTGGACCGAGAGCACCTCAAAGTGAA  
CGAGTATTTGCCGGCCAGCAGCACTGCCTTGAGAAGATACTAGAATTCATCAGAAGCAGTGGGCCAG  
ACACCTGCTGAGTCGGATTTCCAGGTGCTCGAAATTTGCTCGAAAGTTGGAATGTACGGCATCAGATTTT  
ACATGGCTTCTGACAGGGAAGGAACCAAGATTCAACTGGCAGTTTCCCACATGGGTGTACTCGTGTCCA  
GGGCACCACAAAATCAACACTTTCAACTGGTCCAAGTCCGTAACCTAAGCTTCAAGAGGAAAAGATTT  
CTTATCAAACCTCATCCAGAGGTTTATGGACCTTACCAGGACACATTAGAATTTTTGTTGGGTAGTAGAG  
ATGAATGTAAGAACTTCTGGAAGATTTGTGTGGAGTATCACACCTTTTTTAGACTTTTGGACCACTAA  
GCCAAAAGCAAAGCCGCTTCTTCAGCCGGGGCTCCTCCTTTCAGATACAGTGAAGAAGTCAAGAAACA  
CTAGTAGATTATTTCAAAGACAGTGAATGAAGAGAATTCATATGAAAGAAGGCACAGCAAGACCCACA  
CGTCCGTTCCGAGCTCTGACTGCAGACTACCAAAACAGAGCATCTCATTCCCCGAGGGATTGAGGACTCC  
TGCTCCCATCTTCAGCGAATGCCTTTTACTCGCTCTCCTCCACTCTGGTCCCCTCTGGCCTGCCA  
GAGTTTAAAGGACAGCAGCAGCTCCCTCACAGATCCCCAGGTTTCTACGTCAAGAGTCCAGCTGCAGAGA  
GGCGCAGTGGAGCAGTGGCTGGAGGCCCGACACACCATCGGCCAGCCCTCGGGCCCCCGCACTCCA  
GCCTGGTCCAGGCCTTTCCACGAAGAGTCTCAGCCTTCTCCTCCAGCCGGAAGAGCCCTGAGTCTG  
AGCCCTGCATTTAGGTGCCTTTGGGCCAGCTGAACAGGGCTCATCCCCACTCTGAGCCCTGTCTCA  
GTGATGCTGGCGAGCCGGGATGGACTGCGAGGAGCCAGACACAAGCGCGTGCCTGCAGACGAGGCCTA  
CTTCATAGTCAAAGAGATTCTCGCTACAGAACGAACATACCTCAAGGATTTAGAAGTTATTACCGTGTGG  
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ATCCCATCTATGAGTTCCACAGAGGCTTCTGCGCGAGGTGGAGCAGAGGCTGGCACTCTGGGAAGGGCC  
CTCAAAGCCACACAAAAGGCAGTCATCAACGAATCGGGGACATCTGTCTCAGGAACATGCGCCAGTTA  
AAGGTGTTCCAGCTCCACGAAGGGCATGTAGCAGGGGTACAAAAATGGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA

Protein Sequence: >RC239195 representing NM\_001282983  
 Red=Cloning site Green=Tags(s)

MGEIEGTYRVLQTAGMRLGAQTPVGVSTLEPGQTLLPRMQEKHLHLRVKLLDNTMEIFDIEPKCDGQVLL  
 TQVWKRLNLVECDYFGMEFQNTQSYWIWLEPMKPIIRQIRRPKNVVLRLAVKFFPPDPGQLQEEYTRYLF  
 ALQLKRDLLLEERLTCADTTAALLTSHLLQSEIGDYDETLDREHLKVNEYLPGQQHCLEKILEFHQKHVGG  
 TPAESDFQVLEIARKLEMYGIRFHMASDREGTKIQLAVSHMGVLFVFGTTKINTFNWSKVRKLSFKRKRK  
 LIKLHPEVHGYPYQDTLEFLLGSRDECKNFKWICVEYHTFFRLLDQPKPAKAVFFSRGSSFRYSGRTQKQ  
 LDVDFKDSGMKRIPYERRHSKTHTSVRALTADLPKQISIFPEGLRTPASPSSANAFYSLSPSTLVPSGLP  
 EFKDSSSSLTDPQVSYVKSPAARERSGAVAGGPDTPSAQPLGPPALQPGPGLSTKSPQSPSSRKSPLSL  
 SPAFQVPLGPAEQSSPLLSPVLSDAGGAGMDCEEPRHKRVPADAEYFIVKEILATERTYLKDLVITVW  
 FRSAVVKEDAMPATLMTLLFSNIDPIYEFHRGFLREVEQRLALWEGPSKAHTKGSQRIGDILLRNMRQL  
 KVFQLHEGHVAGVTKME

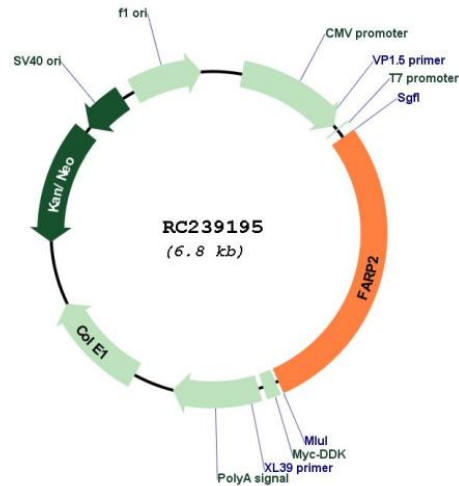
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001282983

**ORF Size:** 1941 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\\_001282983.2](#)

RefSeq Size: 2651 bp

RefSeq ORF: 1944 bp

Locus ID: 9855

UniProt ID: [O94887](#)

Cytogenetics: 2q37.3

Protein Pathways: Adherens junction

MW: 73.7 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]