

## Product datasheet for **RC239445**

### Fibroblast activation protein, alpha (FAP) (NM\_001291807) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Fibroblast activation protein, alpha (FAP) (NM_001291807) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fibroblast activation protein, alpha
Synonyms:	DPPIV; FAPA; FAPalpha; SIMP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RC239445 representing NM\_001291807  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAGACTTGGGTA AAAATCGTATTTGGAGTTGCCACCTCTGCTGTGCTTGCCTTATTGGTGATGTGCA  
 TTGTCTTACGCCCTTCAAGAGTTCATAACTCTGAAGAAAATACAATGAGAGCACTCACACTGAAGGATAT  
 TTTAAATGGAACATTTTCTTATAAAAACATTTTTCCAAACTGGATTTCCAGGACAAGAATATCTTCATCAA  
 TCTGCAGATAACAATATAGTACTTTATAATATTGAAACAGGACAATCATATACCATTTTGGAGTAATAGAA  
 CCATGCTTTGGAGATACTTTACACAGCAACATATTACATCTATGACCTTAGCAATGGAGAATTTGTAAG  
 AGGAAATGAGCTTCTCGTCCAATTCAGTATTTATGCTGGTGCCTGTTGGGAGTAAATTAGCATATGTC  
 TATCAAAACAATATCTATTTGAAACAAAGACCAGGAGATCCACCTTTTCAAATAACATTTAATGGAAGAG  
 AAAATAAAATATTTAATGGAATCCAGACTGGGTTTATGAAGAGGAAATGCTTGTACAAAATATGCTCT  
 CTGGTGGTCTCCTAATGGAATAATTTGGCATATGCGGAATTTAATGATACGGATATACCAGTTATTGCC  
 TATTCCTATTATGGCGATGAACAATATCCTAGAACAAATAATATCCATACCCAAAGGCTGGAGCTAAGA  
 ATCCCCTGTGTTCCGATATTTATTATCGATACCCTTACCCTGCGTATGTAGGTCCCAGGAAGTGCCCTGT  
 TCCAGCAATGATAGCCTCAAGTATTATTTTTCAGTTGGCTCACGTGGGTTACTGATGAACGAGTATGT  
 TTGAGTGGCTAAAAGAGTCCAGAATGTTTCGGTCTGTCTATATGTGACTTCAGGGAAGACTGGCAGAA  
 CATGGGATTGTCCAAAGACCCAGGAGCATATAGAAGAAAGCAGAACTGGATGGGCTGGTGGATTCTTTGT  
 TTCAACACCAGTTTTAGCTATGATGCCATTTCTGACTACAAAATATTTAGTGACAAGGATGGCTACAAA  
 CATATTCAGTATATCAAAGACTGTGGAAAATGCTATTCAAATTACAAGTGGCAAGTGGGAGGCCATAA  
 ATATATTCAGAGTAACACAGGATTCAGTGTTTTATTCTAGCAATGAATTTGAAGAATACCCTGGAAGAAG  
 AAACATCTACAGAATTAGCATTGGAAGCTATCCTCCAAGCAAGAAGTGTGTTACTTGCCATCTAAGGAAA  
 GAAAGGTGCCAATATTACACAGCAAGTTTCAGCGACTACGCCAAGTACTATGCACTTGTCTGCTACGGCC  
 CAGGCATCCCCATTTCCACCCTTCATGATGGACGCACTGATCAAGAAATTTAAATCCTGGAAGAAAACAA  
 GGAATTTGAAAATGCTTTGAAAATATCCAGCTGCCTAAAGAGGAAATTAAGAACTTGAAGTAGATGAA  
 ATTACTTTATGGTACAAGATGATTTCTCCTCAATTTGACAGATCAAAGAAGTATCCCTTGCTAATTC  
 AAGTGTATGGTGGTCCCTGCAGTCAGAGTGAAGGTCTGTATTTGCTGTTAATTGGATATCTTATCTTGC  
 AAGTAAGGAAGGGATGGTCATTGCCTTGGTGGATGGTCGAGGAACAGCTTCCAAGGTGACAACTCCTC  
 TATGCAGTGTATCGAAAGCTGGGTGTTTATGAAGTTGAAGACCAGATTACAGCTGTGAGAAAATTCATAG  
 AAATGGGTTTCATTGATGAAAAAGAATAGCCATATGGGGCTGGTCCATGGAGGATACGTTTCATCACT  
 GGCCCTTGCACTCTGGAACCTGGTCTTTTCAAATGTGGTATAGCAGTGGCTCCAGCTCCAGCTGGGAATAT  
 TACGCGTCTGTCTACACAGAGAGATTATGGGTCTCCCAACAAAGGATGATAATCTTGAGCACTATAAGA  
 ATTCAACTGTGATGGCAAGAGCAGAATATTTAGAAAATGTAGACTATCTTCTCATCCACGGAACAGCAGA  
 TGATAATGTGCACTTTCAAACCTCAGCACAGATTGCTAAAGCTCTGGTTAATGCACAAGTGGATTTCAG  
 GCAATGTGGTACTCTGACCAGAACCCAGGCTTATCCGGCCTGTCCACGAACCACTTATACACCCACATGA  
 CCCACTTCCCTAAAGCAGTGTCTTCTTTGTCAGAC

**AGCGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC239445 representing NM\_001291807  
 Red=Cloning site Green=Tags(s)

MKTWVKIVFGVATSAVLALLVMCIVLRPSRVHNSEENTMRALTLKDILNGTFSYKTFPPNWSGQEYLHQ  
 SADNNIVLYNIETGQSYTILSNRTMLWRYSYATYYIYDLNNGEFVRGNELPRPIQYLCWSPVGSKLAYV  
 YQNNIYLKQRPGDPPFQITFNGRENKIFNGIPDWVYEEMLATKYALWSPNGKFLAYAEFNDTDIPVIA  
 YSYYGDEQYPRITINIPYPKAGAKNPVVRIFIIDTTYPAYVGPQEVVPAMIASSDYFVSWLTWVTDERVC  
 LQWLKRVQNVSVLSICDFREDWQWDCPKTQEHEEESRTGWAGGFVSTPVFSYDAISYYKIFSDKDGYK  
 HIHYIKDVTENAIQITSGKWEAINIFRVTDLSLFYSSNEFEEYPGRRNIYRISIGSYPPSKKCVTCHLRK  
 ERCQYYTASFSDYAKYYALVCYGPPISTLHDGRTDQEIKILEENKELENALKNIQLPKEEIKKLEVDE  
 ITLWYKMLPPQFDRSKKYPLLIQVYGGPCSQSVRSVFAVNWISYLASKEGMVIALVDGRGTAFAQGDKLL  
 YAVYRKLGVYEVEDQITAVRKFIEMGFIDEKRIAIWGSYGGYVSSLALASGTGLFKCGIAPVSSWEY  
 YASVYTERFMGLPTKDDNLEHYKNSTVMARAEYFRNVDYLLIHGTADDNVHVFQNSAQIAKALVNAQVDFQ  
 AMWYSDQNHLSGLSTNHLYTHMTHFLKQCFSLSD

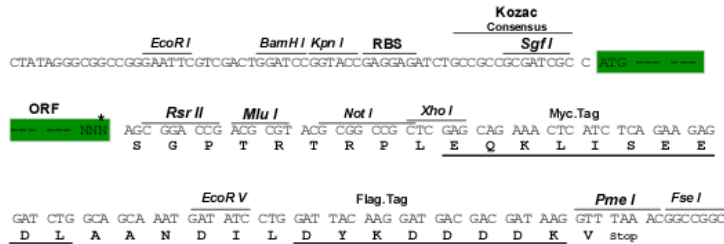
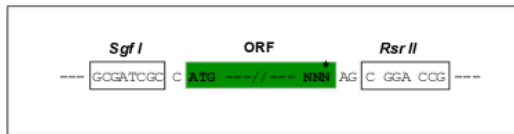
SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3043\\_f07.zip](https://cdn.origene.com/chromatograms/ja3043_f07.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001291807

**ORF Size:** 2205 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001291807.3](#)

**RefSeq Size:** 2740 bp

**RefSeq ORF:** 2208 bp

**Locus ID:** 2191

**UniProt ID:** [Q12884](#)

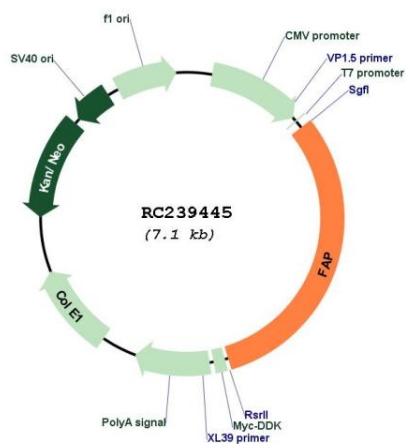
**Cytogenetics:** 2q24.2

**Protein Families:** Druggable Genome, Protease, Transmembrane

**MW:** 84.9 kDa

**Gene Summary:** The protein encoded by this gene is a homodimeric integral membrane gelatinase belonging to the serine protease family. It is selectively expressed in reactive stromal fibroblasts of epithelial cancers, granulation tissue of healing wounds, and malignant cells of bone and soft tissue sarcomas. This protein is thought to be involved in the control of fibroblast growth or epithelial-mesenchymal interactions during development, tissue repair, and epithelial carcinogenesis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2014]

Product images:



Circular map for RC239445