

## Product datasheet for **RC234831**

### **KIFAP3 (NM\_001204517) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KIFAP3 (NM_001204517) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KIFAP3
Synonyms:	dj190116.1; FLA3; KAP-1; KAP-3; KAP3; SMAP; Smg-GDS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC234831 representing NM\_001204517  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGGGACCCCATGTTGGGAGAACGAAAAGAATGTCAAAAAATCATTGACTTAAGAGTCTCAATGCCA  
 ACACAGATATAACTTCCCTGGCAAGGAAGTGGTTGAAGAATGTAAGTCACTTATCCTTAAAACTAAA  
 TGAGGTAGAACAGCTGTTGACTATCTACAGAACCGCCGTGATTCATTGTCAGGAAAAGAGAAAAAGAA  
 AAATCAAGCAAGCCTAAAGATCCACCTCCTTTGAAGGAATGGAGATTGATGAAGTTGCTAACATTAATG  
 ACATGGATGAATATATTGAGTTATTATGAAGATATTCTGACAAAGTTCGGGGTTCTGCTTTGATCCT  
 GCAGCTTGCTCGAAATCCTGATAACTTGAAGAAGTACTATTGAATGAACTGCCCTTGGTGCATTAGCA  
 AGGGTCTGAGAGAAGACTGGAAGCAAAGTGTGAGTTAGCTACAACATAATTTACATCTTTTTTTGTT  
 TCTCCAGCTTTTCTCAATTCATGGACTTATTACTCACTATAAAATGGAGCTCTGTGTATGAATATTAT  
 TGATCATGAGTTAAAAAGACATGAGCTTTGGCAAGAAGAACTCTCAAAGAAGAAGAAAGCTGTTGATGAA  
 GACCCTGAAAACCAAACCTTGAGAAAGGATTATGAAAAACCTTTAAAAAGTACCGAGGGCTTGTGGTAA  
 AACAGGAACAGCTATTACGAGTTGCTCTTTATTTGCTTCTGAATCTTGCTGAGGATACTCGTACCGAACT  
 GAAAATGAGGAACAAGAACATAGTTCACATGTTGGTGAAGCCCTTGATCGGGACAATTTGAGCTGCTA  
 ATTTTAGTTGTGTCATTCTTGAAGAACTCAGCATTTTTATGGAGAATAAAAAATGATATGGTGAAATGG  
 ATATTGTTGAAAACTGGTGAAGATGATACCTTGTGAGCATGAAGACCTGCTGAATATCACCTCCGACT  
 TTTACTAAACCTATCCTTGGACACAGGACTGAGGAATAAGATGGTACAAGTTGGACTGCTCCCAAGCTC  
 ACTGCACCTCCTAGGCAATGACAACACAAACAAATAGCAATGTGTGTTCTTTACCACATAAGCATGGATG  
 ACCGCTTTAAATCAATGTTTGCATACACTGACTGTATACCACAGTTAATGAAGATGCTGTTTGAATGTT  
 AGATGAACGAATTGACTTGAAGTCACTTTCTTTCTGCATTAATCTTGCTGCTAACAAAAGAAATGTACAG  
 CTTATCTGTGAAGGAAATGGGCTGAAGATGCTCATGAAGAGGGCTCTGAAGTTTAAAGATCCATTGCTGA  
 TGAAAATGATTAGAAACATTTCTCAGCATGATGGACCAACTAAAAATCTGTTTATTGATTATGTTGGGGA  
 CCTTGCAGCCAGATCTCTAATGATGAAGAAGAGGAGTTTGTGATTGAATGTTTGGGAACTTTCGAAAC  
 TTGACCATTCCAGACTTAGACTGGGAATTGTTCTTAAAGAATAAAGTTGGTCCATACCTCAAGGATA  
 AACTAAAACAGGTGCTGCAGAAGATGATCTTGTGTTTGAAGTGGTTATAATGATTGGAAGTGTATCCAT  
 GGATGACTCTTGTGCTGCATTGCTAGCCAAATCTGGCATAATCCCTGCACTCATTGAATTGCTAAATGCT  
 CAACAAGAAGATGATGAATTTGTGTGTCAGATAATTTATGTCTTCTACCAGATGGTTTTCCACCAAGCCA  
 CAAGAGACGTCATAATCAAGGAAACACAGGCTCCAGCATATCTCATAGACCTAATGCATGATAAGAATAA  
 TGAAATCCGAAAGGTCTGTGATAATACATTAGATATTATAGCGGAATATGATGAAGAATGGGCTAAGAAA  
 ATTCAGAGTGAAAAGTTTCGCTGGCATAACTCTCAGTGGCTGGAGATGGTAGAGAGTCGTGAGATGGATG  
 AGAGTGAGCAGTACTTGTATGGTGTGATCGAATTGAGCCATACATTCATGAAGGAGATATTCTCGAAAG  
 ACCTGACCTTTTCTACAACCTCAGATGGATTAATTGCCTCTGAAGGAGCCATAAGTCCCGATTTCTCAAT  
 GATTACCACCTTCAAAATGGAGATGTTGTTGGGCAGCATTCAATTCCTGGCAGCCTTGAATGGATGGCT  
 TTGGCCAAACAGTTGGCATTCTTGGACGCCCTGCCACAGCATATGGATTCCGCCCTGATGAACCTTACTA  
 CTATGGCTATGGATCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC234831 representing NM\_001204517  
 Red=Cloning site Green=Tags(s)

MGDPMLGERKECQKIIRLKSLNANTDITSLARKVVEECKLIHPSKLNVEQQLLYLQNRDLSGKKEKKE  
 KSSKPKDPPPFEGMEIDEVANINDMDEYIELLYEDIPDKVIRGSAIILQLARNPDNLEELLNETALGALA  
 RVLREDWKQSVELATNIIYIFFCFSSFSQFHGLITHYKIGALCMNIIDHELKRHELWQEELSKKKKAVDE  
 DPENQTLRKDYKTFKKYQGLVVKQEQLLRVALYLLLNLAEDTRTELKMRNKNIHVHMLVKALDRDNFELL  
 ILVVSFLKKLISIFMENKNDMVEMDIVEKLVKMIPEHEDELLNITLRLLLNLSFDTGLRNKMVQVGLLPKL  
 TALLGNDNYKQIAMCVLYHISMDDRFKSMFAYTDCIPQLMKMLFECSDERIDLELISFCINLAANKRNQV  
 LICENGLKMLMKRALFKDPLLMKIRNISQHDGPTKNLFDIVYVDLAAQISNDEEEEFVIECLGTLAN  
 LTIPDLWELVLKEYKLVYKDKLKPAAEDDLVLEVVIMIGTVSMDDSCAALLAKSGIIPALIELLNA  
 QQEDDEFVCQIIYVFYQMVFHQATRQVVIKETQAPAYLIDLMHDKNNEIRKVCNTLDIIAEYDEEWAKK  
 IQSEKFRWHNSQWLEMVESRQMDSEQYLYGDDRIEPIYIHEGDILERPDLFYNSDGLIASEGAISPFFN  
 DYHLQNGDVVGGHSFPGSLGMDGFGQPVGILGRPATAYGFRPDEPYYYGYGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001204517

**ORF Size:** 2256 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\\_001204517.1](#), [NP\\_001191446.1](#)

**RefSeq Size:** 4120 bp

**RefSeq ORF:** 2259 bp

**Locus ID:** 22920

**UniProt ID:** [Q92845](#)

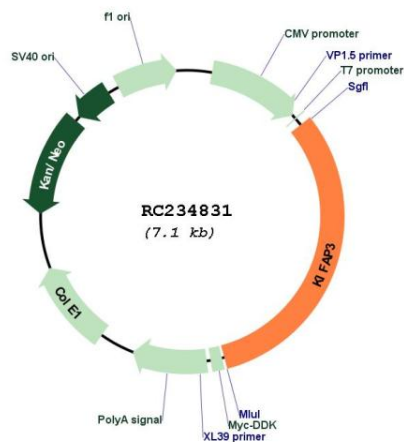
**Cytogenetics:** 1q24.2

**Protein Families:** Druggable Genome

**MW:** 87.2 kDa

**Gene Summary:** The small G protein GDP dissociation stimulator (smg GDS) is a regulator protein having two activities on a group of small G proteins including the Rho and Rap1 family members and Ki-Ras; one is to stimulate their GDP/GTP exchange reactions, and the other is to inhibit their interactions with membranes. The protein encoded by this gene contains 9 'Armadillo' repeats and interacts with the smg GDS protein through these repeats. This protein, which is highly concentrated around the endoplasmic reticulum, is phosphorylated by v-src, and this phosphorylation reduces the affinity of the protein for smg GDS. It is thought that this protein serves as a linker between human chromosome-associated polypeptide (HCAP) and KIF3A/B, a kinesin superfamily protein in the nucleus, and that it plays a role in the interaction of chromosomes with an ATPase motor protein. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2011]

Product images:



Circular map for RC234831