

## Product datasheet for **MR231266**

### **Akap1 (NM\_001042541) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Akap1 (NM_001042541) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Akap1
Synonyms:	Akap; AKAP84; AKAP121; C76494; C81186; DAKAP1; S-AKAP84
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR231266 representing NM\_001042541  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCAATCCAGTTGCGTTCGCTTCCCTTGGCGTTGCCCGGAATGCTGGCCCTCCTTGCTGGTGGT  
 GGTTCCTCTCGTAAAAAGATCGGCTCAGCAGCAGTGATAAGCAGGTGGAGACTGAAGTTGGCC  
 TGCCATCAAGGACCGACGGCTCAGTGAAGAGCCGTGCTCGGAGTCTGTCTGTGCCCCCACTGTCACA  
 CAGCTCCTGGAAGGGAAGAGCAGCGCTGTGTGGACAAGCCTTCTACAGAGCCCTGGCCTTGGCGAGGA  
 CTCGCCAGGTTGACGAAGATCAGAGTCTCAGGCAACCTCCCGAGGTTGCAGACACGAGGTGCGACGC  
 AGGACCGTGCAGAGATGAGATCGCCAAAGTGGAACTCTCCCTGATGGGGGACAAAGCCAAATCTATTCT  
 CTTGGATGTCGCTTCTCCAAAGGATGCGTCTTCCCTATGAAGCAGTGGAAAGGTGTAAGCAGGAGT  
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 GACAGGTGGGACAGAGGGGACTGGAGATGCTGTGTTGGGGGAAAATGTATCTGAGGAAGGCCTATTGTC  
 CAGGAGTGTCTCAGAAGTGGAGAAGAGTGAGTTCCAATCCTGGCCCCGGGGGAGGTGAGGGAGAAG  
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 GAGTAGCTTTGTGGAGCCAGTTCCTCAGAGCCGGTAAAGGACGAGGATGCGTTGGAACCCAGGTCAA  
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 CACCACAGTGGCAAGACTGTGGACAAGTGCACCAACCTCGGCCACTCAGCCTAAGGGGAAGGAGGAG  
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 GTGCCACTGCAGCCCTTCAGCAGAAGCTCTGCCACCAAGACCTATGTAAGCTGTCTCAGCAGCCCTCT  
 GTCAGGCCCCACCAAGGACCAGAAGCCAAAGAAGCTCTGCACATCACATCTCCCTGGCTCCCTGCCACCG  
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 GATCTGCCACATAGAAGGCTCTCAGCACCATGTAGACAAAGCTCTGAACTTGATTGGGAAGAAGTTAAG  
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 CTGCCATTCCAAGGAGCAGAAGTCTTCTGGACAGTGTGGTTCCCTGTGACAGATGATGATATTTTCAC  
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 CTGGTGGAGCGAGGCTTGCACAGTGGTAGACAGCTACTATGCCAGCCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231266 representing NM\_001042541  
 Red=Cloning site Green=Tags(s)

MAIQLRSLFPLALPGMLALLGWWFFSRKKDRLSSSDKQVETLKVGPAIKDRRLSEEACPGVLSVAPTVT  
 QPPGREEQRCDKVPSTEPLALPRTRQVRRRSESSGNLPSVADTRSQPGPCRDEIAKVELSLMGDKAKSIP  
 LGCPLLPKDASFPYEAVERCKQESALGKTPGRGWPSPYAASGEKARETGGTEGTGDAVLGENVSEEGLLS  
 QECVSEVEKSEFPILAPGGGEGEEVSHGPPQVAELLKKEEYIVGKLPSSFVEPVHSEPVKDEDALPEQVK  
 GSSNTSDRDLAGELDKDETVPENDQIKQAAFQLISQVILEATEEFRATTVGKTVAQVHPTSATQPKGKEE  
 SCVPASQETSLGQDTSDPASTRTGATASPSAEALPPKTYVVSCLSSPLSGPTKDQKPKNSAHHISLAPCP  
 PVTPQRQSLEGASNPRGDDNFVACMANNQSIVLSVSSLGQCSDPVSTSGLEDSCTETISSSGDKAMTPPL  
 PVSTQPF SNGVLKEELSDLGTEDGWTMDEADHSGGSDGNSMDSVSDCCGLTKPDSPQSVQAGSNPKKVD  
 LIIWEIEVPKHLVGRIGKQGRYVSFLKQTSGAKIYISTLPTQNIQICHIEGSQHHVDKALNLIGKKFK  
 ELNLTNIYAPPLPSLALPSLPMTSWLMLPDGITVEVIVVQVQVAGHLFVQQHTHTPFHALRSLDQQMYLC  
 YSQPGIPTLPTPVEITVICAAPGADGAWWRAQVVASYEETNEVEIRYVDYGGYKRVKVDVLRQIRSDFT  
 LPFQGAEVLLDSVVPLSDDDFHSPEADAAMSEMTGNTALLAQVTSYSATGLPLIQLWSVVGDEVVLI  
 NRS LVERGLAQWVDSYYASL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

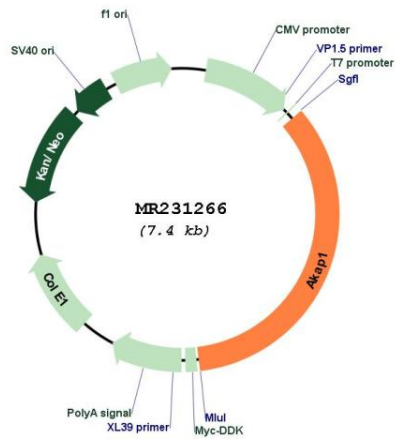
Sgfl-MluI

Cloning Scheme:



<b>ACCN:</b>	NM_001042541
<b>ORF Size:</b>	2571 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001042541.1</a> , <a href="#">NP_001036006.1</a>
<b>RefSeq Size:</b>	3758 bp
<b>RefSeq ORF:</b>	2574 bp
<b>Locus ID:</b>	11640
<b>UniProt ID:</b>	<a href="#">O08715</a>
<b>Cytogenetics:</b>	11 C
<b>MW:</b>	92.2 kDa
<b>Gene Summary:</b>	Differentially targeted protein that binds to type I and II regulatory subunits of protein kinase A. Anchors them to the cytoplasmic face of the mitochondrial outer membrane or allows them to reside in the endoplasmic reticulum. Does not contain the classic KDEL endoplasmic reticulum-targeting sequence. This explains how it is able to switch its localization, either being in the endoplasmic reticulum or in the mitochondria depending on which N-terminal part begins the isoform. The longest N-terminal part only present in isoform 2 and isoform 4 acts as a suppressor of mitochondrial targeting and as an activator of recessive endoplasmic reticulum targeting motif.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR231266