

## Product datasheet for **MC229055**

### Akap1 (NM\_001042541) Mouse Untagged Clone

#### Product data:

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



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**Fully Sequenced ORF:** >MC229055 representing NM\_001042541  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCAATCCAGTTGCGTTCGCTTCCCTTGGCGTTGCCCGGAATGCTGGCCCTCCTTGCTGGTGGT  
 GGTTTTCTCTCGTAAAAAGATCGGCTCAGCAGCAGTGATAAGCAGGTGGAGACTGAAGTTGGCCC  
 TGCCATCAAGGACCGACGGCTCAGTGAAGAGCCGTGCTCGGAGTCTGTCTGTGGCCCCACTGTCACA  
 CAGCCTCTGGAAGGGAAGAGCAGCGCTGTGTGGACAAGCCTTCTACAGAGCCCTGGCCTTGGCGAGGA  
 CTCGCCAGGTTGACGAAGATCAGAGTCTCAGGCAACCTCCCAGCGTTGCAGACACGAGGTGCGACGC  
 AGGACCGTGCAGAGATGAGATCGCCAAAGTGGAACTCTCCCTGATGGGGGACAAAGCCAAATCTATTCT  
 CTTGGATGTCCGCTTCTCCAAAGGATGCGTCTTCCCCTATGAAGCAGTGGAAAGGTGTAAGCAGGAGT  
 CCGCACTGGGCAAGACTCCTGGAAGAGGCTGGCAAGCCCGTATGCGGCCCTGGAGAGAAAGCGAGAGA  
 GACAGGTGGGACAGAGGGGACTGGAGATGCTGTGTTGGGGGAAAATGTATCTGAGGAAGGCTATTGTCC  
 CAGGAGTGTCTCAGAAGTGGAGAAGAGTGGATTTCCAATCCTGGCCCCGGGGGAGGTGAGGGAGAAG  
 AGGTGAGCCATGGCCCCACAGGTAGCTGAACTTTTAAAGAAGGAAGAATATATTGTTGGGAAGTTGCC  
 GAGTAGCTTTGTGGAGCCAGTTCCTCAGAGCCGGTAAAGGACGAGGATGCGTTGGAACCCAGGTCAA  
 GGTAGCAGCAATACTTCGGATAGAGACCTGGCTGGAGAGCTGGACAAAGACGAGACCGTGCCTGAAAATG  
 ACCAGATTAAGCAGGCTGCCTTCCAGCTCATCTCCAGGTGATCTTGAAGCAACTGAAGAGTTTCGGGC  
 CACCACAGTGGCAAGACTGTGGACAAGTGCACCAACCTCGGCCACTCAGCCTAAGGGGAAGGAGGAG  
 AGCTGTGTTCCAGCCAGCCAGGAACTAGCTTGGGACAAGACACCTCAGATCTGCTTCCACCAGAACAG  
 GTGCCACTGCCAGCCCTCAGCAGAAGCTGCCACCAAGACCTATGTAAGCTGTCTCAGCAGCCCTCT  
 GTCAGGCCCCACCAAGGACCAGAAGCCAAAGAAGCTCTGCACATCACATCTCCCTGGCTCCCTGCCACCG  
 CAGTCAACCCAGAGGCACTCTGGAGGGGCAAGTAACCCGAGAGGTGATGACAACCTTGTGCGCT  
 GTATGGCCAACAACAGCCAGAGTGTCTTTCAGTTAGCTCCTTGGGGCAGTGCTCAGATCTGTCAGTAC  
 TTCGGGGCTTGAAGACTTTCACAGAGACCATCTCAAGCTCCGGAGACAAAGCTATGACCCACCCTG  
 CCAGTCACTACTCAGCCCTTCCAGCAACGGGGTCTGAAGGAGGAGCTGTCAGACTTAGGGACCGAGGATG  
 GATGGACCATGGATACAGAAGCAGATCACTCAGGAGGTTCTGACGGGAACAGTATGGATTAGTGGATAG  
 CTGTTGCGGGCTTACCAAGCCCGATAGCCCCAGAGTGTCCAGGCAAGGCTCAACCCTAAGAAGGTTGAC  
 CTTATCATCTGGGAGATCGAGGTGCCAAAGCACTTAGTTGGTCTGACTGATTGGCAAGCAGGGACGGTACG  
 TGAGTTTTCTGAAGCAGACATCTGGTGCCAAGATCTACATCTCCACCCTGCCTTACACACAGAACATCCA  
 GATCTGCCACATAGAAGGCTCTCAGCACCATGTAGACAAAGCTCTGAACTTGATTGGGAAGAAGTTAAG  
 GAACTGAACCTCACCAATATCTATGCGCCACCCTGCCTTCGCTGGCACTGCCTTCTTGGCGATGACGT  
 CTTGGCTCATGCTGCCTGATGGTATCACTGTGGAAGTCACTGCTGGTCAACCAGGTCAATGCTGGGCACCT  
 ATTTGTCCAGCAGCACACACCCACCTTCCATGCACTGCGCAGTCTGGACCAGCAGATGTACCTCTGT  
 TACTCTCAGCTGGAATCCACCTTGGCCACCCAGTGGAAATCACGGTTATCTGCGCTGCCCTGGTG  
 CGGACGGGGCTGGTGGCAGCCCAAGTAGTGGCTTCTATGAGGAGACCAATGAGGTGGAGATTCGCTA  
 CGTGGACTATGGTGGATATAAGAGAGTGAAGTGCAGTGTCTCCGCAAAATTAGGTCTGACTTTGTGACC  
 CTGCCATTCCAAGGAGCAGAAGTCTTCTGGACAGTGTGGTTCCCTGTGACAGATGATGATATTTTTCAC  
 CGGAGGCAGACGAGCCATGAGTGAAGTACAGCAATACAGCACTGTTGGCCAGGTGACAAGCTACAG  
 TGCGACTGGCCTTCTCTGATTAGCTATGGAGTGTGGTTGGAGATGAAGTGGTGTGATAAACCAGGTCG  
 CTGGTGGAGCGAGGCCTTGCACAGTGGGTAGACAGCTACTATGCCAGCCT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001042541  
**Insert Size:** 2574 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u>NM_001042541.1, NP_001036006.1</u>
<b>RefSeq Size:</b>	3758 bp
<b>RefSeq ORF:</b>	2574 bp
<b>Locus ID:</b>	11640
<b>UniProt ID:</b>	<u>O08715</u>
<b>Cytogenetics:</b>	11 C
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (2) has an alternate 5' UTR exon, compared to variant 1. Variants 1 and 2 encode the same protein.</p>