

Product datasheet for **MR212422**

Aak1 (NM_177762) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aak1 (NM_177762) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aak1
Synonyms:	5530400K14Rik; 9630042K20; AU067724; AU067726; BC028270; C79663; D6Ertd245e; mKIAA1048; R75501
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR212422 representing NM_177762
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAAGTTTTTCGACTCCAGGCGGGAGCAGGGGAGCTCTGGCCTGGGTTTCAGGCTCCAGCGGAGGAG
 GGGGCAGCAGCTCAGGCCTGGGCAGTGGTTACATCGGAAGGGTCTTCGGCATCGGGAGGCAGCAGGTCAC
 CGTGGACGAGGTGTTGGCGGAAGGTGGATTTCGCTCTTGTCTTTCTGGTGAGAAACAAGCAATGGGGTGAAA
 TGTGCCTTGAAACGATGTTTGTCAACAATGAACATGACCTCCAGGTGTGCAAGAGGGAGATCCAGATCA
 TGAGAGACCTATCAGGGCACAAGAACATTGTGGGCTACATTGATTCTAGTATCAACAATGTGAGCAGCGG
 CGACGCTGGGAAGTTCTCATTCTCATGGACTTCTGCAGAGGAGGCCAGGTGGTAAACCTGATGAACCG
 CGTCTCCAGACAGGCTTACAGAGAATGAAGTGTGCAGATATTCTGTGACACCTGTGAAGCTGTGGCCC
 GCCTGCATCAGTGCAAACTCCCATTATCCACCGGGACCTGAAGGTTGAAAATATCCTCTTGCATGACCG
 AGGCCACTATGTCTTGTGTGACTTTGGAAGTGCCACCAACAAATCCAGAATCCACAGGCCGAGGGAGTC
 AATGCAGTAGAAGATGAGATTAAGAAATACACAACGCTCTCCTATCGAGCCCCAGAAATGGTCAACTTGT
 ACAGTGGCAAAATCATCACTACGAAGGCAGATATTTGGGCTCTAGGCTGTTTGTGTATAAATTATGCTA
 CTTCACTTTGCCGTTTGGGGAGAGCCAGGTGGCGATTTGTGACGGAAGCTTACAAATTCCTGATAACTCT
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 TCCCATTCCTGCAAACTTCTGAACAGTGAAAGCCAGTGAAGCAGCTGTGAAAAGACCCAGCCAAAG
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 GCCCTACCTCAGGCTGCAGGACCCAGCAATCAGCCTGGACTTCTACCCAGTGTTTCCCAACCTAAAGCC
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 AGACACCTGCTACCCAGACACAAGGTTTGGCCACCCAGGCCAGGCCACTCCCCAGCACCAGCAGCAACA
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 ACCTTTTACCAGCAGCAGCAGCAACAGCAGCAGCAGCAGGCTCAGACTCAGCAGCAGATTCAAGCCCCAG
 TGAGACAACAGCCAAAAGTTCAGACCACTCCACCTCAACCATCCAGGGACAGAAAGTTGGATCTCTCAC
 TCCTCCATCATCACCAAAACCAACGTGCTGGGCACAGACGGATTCTCAGTGATGAACCCACAGTGCA
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 AATCTAAGTCTGCAACCACCACTCCCTCAGGCTCTCCACGGACTTACAGCAGAATGTCTCCAATGCTTC
 AGAAGGCTCCACATGGAATCCTTTTGTGACGACAACCTCTCAAACCTCACAGCTGAAGAGCTGCTAAAC
 AAGGACTTTGCCAAGCTTGGGAAGGAAAGCTGCCTGAGAAGCTTGGTGGCTCTGCAGAGAGTTTGTATCC
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 ACCTAGCCAGGTCTTGTGCTGGTGGATCAGCTCATAGACCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR212422 representing NM_177762
 Red=Cloning site Green=Tags(s)

MKKFFDSRREQSSGLSGSSGGGSSSGLGSGYIGRVFGIGRQQVTVDEVLAEAGFALVFLVRTSNGVK
 CALKRMFVNNEHDLQVCKREIQIMRDL SGHKNI VGYIDSSINNVS SGGDVWEVLILMDFCRGGQVNL MNQ
 RLQTGF TENEVLQIFCDTCEAVARLHQCKTPIIHRDLKVENILLHDRGHYVLCDFGSATNKFQNPQAEV
 NAVEDEIKKYTTLSYRAPEMVNLVSGKIIITTKADIWALGCLLYKLCYFTLPFGESQVAICDGSFTIPDNS
 RYSQDMHCLIRYMLEPDPDKRPDIYQVSYFSFKLLKKECPVNVQNSPIPAKLPEPVKASEAAVKKTQPK
 ARLTDP IPTTETSIAPRQRPKAGQTQPNPILPIQPALTPRKRATVQPLPQAAGPSNQPLLPSVSQPKA
 QATPSQPLQSSQPKQPAPPTPQQTPATQTQGLPTQAQATPQHQQHLLKQQQQQQPQPPTAPPQAG
 TFYQQQQQQQQQAQTQQQIQAPVRRQPKVQTTPPTIQGQKVGSLTPPSSPKTQRAGHRRILSDVTHSA
 VFGVPASKSTQLLQAAAAEASLNKSKSATTTSPGSPRTSQQNVSNASEGSTWNPFDNDFSKLTAELLN
 KDFAKLGEGKLEKLGSAESLIPGFQPTQDAFTTPSF SAGTAEKRKGGQAVDSGIPLLSVSDPFIPLQ
 VPDAPKLEIEGLKSPDTSLLLPDLLPMTDPFGSTSDAVIDKADVAVESLIPGLEPPVAQRLSQTESVTS
 NRTDSL TGEDSLLDCSLLSNPTAGLLEEFAPIALSAPTHKAAEDSNLISGFGVAEGSEKVAEDEFDPIPV
 LITKNTQGGHSRNSSGSESSLPNLARSLLLVDQLIDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

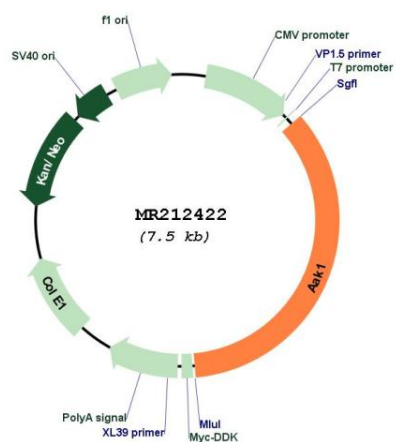


ACCN:

NM_177762

ORF Size:	2634 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:	<ol style="list-style-type: none">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_177762.7
RefSeq Size:	19120 bp
RefSeq ORF:	2637 bp
Locus ID:	269774
UniProt ID:	Q3UHJ0
Cytogenetics:	6 37.75 cM
MW:	95.1 kDa
Gene Summary:	Regulates clathrin-mediated endocytosis by phosphorylating the AP2M1/mu2 subunit of the adaptor protein complex 2 (AP-2) which ensures high affinity binding of AP-2 to cargo membrane proteins during the initial stages of endocytosis. Isoform 1 and isoform 2 display similar levels of kinase activity towards AP2M1. Regulates phosphorylation of other AP-2 subunits as well as AP-2 localization and AP-2-mediated internalization of ligand complexes. Phosphorylates NUMB and regulates its cellular localization, promoting NUMB localization to endosomes. Binds to and stabilizes the activated form of NOTCH1, increases its localization in endosomes and regulates its transcriptional activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR212422