

Product datasheet for **RC221314**

AKAP5 (NM_004857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKAP5 (NM_004857) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AKAP5
Synonyms:	AKAP75; AKAP79; H21
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221314 representing NM_004857
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAACCACAATTTTCAGAAATTCATGTAGAAAACAAGGATGAGAAGAGATCAGCAGAAGGTAGTCCTG
 GGGCTGAAAGGCAGAAGGAAAAGGCATCCATGCTTTGCTTCAAGAGAAGAAAGAAAGCAGCCAAAGCACT
 GAAGCCCAAAGCTGGCTCTGAAGCTGCTGATGTGGCAAGGAAGTCCACAAGAAGCAGGAGCTTCTGAT
 CAGCCAGAGCCCACAGGGGGCCTGGGCCTCAACCGTCTTGTAAACACGCAGGAAAAGGTCAGAGT
 CTTCAAAGCAGCAAAAGCCATTGGAGGGTGAATGCAACCTGCAATAAATGCTGAGGATGCTGATCTTTC
 TAAGAAAAAGGCAAAATCTAGACTTAAGATCCCTGCATAAAAATCCCAAGAGGGCCAAAAGGAGTAAT
 CATTCCAAAATTATAGAAGACTCAGACTGCAGCATCAAAGTCCAGGAAGAAGCTGAAATTTGGATATAC
 AAACACAGACCCATTGAATGATCAGGCAACAAAGGCTAAGTCAACCCAGGATCTAAGTGAAGGCATCTC
 ACGGAAAGATGGTGATGAGGTCTGTGAATCAAATGTGAGCAATAGCATAACTTCTGGAGAGAAAGTGATT
 TCAGTAGAACTTGGATTAGATAATGGGCATTCTGCTATTCAAACGGGAACCTAATCCTTGAAGAAATTG
 AAACGATCAAGGAAAAACAAGATGTTCAACCCAGCAAGCAAGCCCACTTGAACCTCAGAAACAGACCA
 TCAGCAGCCAGTACTTTCTGATGTTCTCTTTACCTGCAATCCAGATCAACAAATTGTGGAAGAAGCC
 AGTAACAGTACCCTAGAAAGTGCACCAATGGAAGACTATGAAAGTACAGAGATTGTAGCTGAAGAAA
 CTAAGCCAAAAGATACTGAATTGAGCCAAGAATCAGATTTTAAAGAAAATGGGATCACTGAAGAGAAATC
 CAAATCAGAAGAAAGCAAAAGAATGGAGCCAATTGCTATTATTATTACAGACTGAAATCAGTGAATTT
 GATGTTACAAAATCTAAAATGTCCCTAAGCAATCTTAATTTTCAGCTGAAAATGAGCAAGTAGGGGTTT
 TTGCTAATGATAATGGTTTTGAGGATAGAATTCAGAACAAATGAAACACTCTTAATTTGAAACAGCCTC
 TTCTCTAGTCAAGAATGCTATTAGTTGTCAATAGAACAGCTGGTTAATGAAATGCCTCTGATGATAAT
 AAAATAACAATCTTCTACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221314 representing NM_004857
 Red=Cloning site Green=Tags(s)

METTISEIHVENKDEKRSAEGSPGAERQKEKASMLCFKRRKKAALKPKKAGSEAADVARKCPQEAGASD
 QPEPTRGAWASLKRLVTRRRKSESSKQQKPLEGEMQPAINAEDADLSKKKAKSRLKIPCIKFRPGPKRSN
 HSKIIEDSDCSIKVQEEAEILDIQTQPLNDQATKAKSTQDLSEGISRKDGDEVCSNVSNSITSGEKVI
 SVELGLDNGHSAIQGTGLILEEIEIIEKEKQDVQPQASPLETSETDHQQPVLSDVPPLPAIPDQQIVEEA
 SNSTLESAPNGKDYESTEIVAEEETKPKDTELSESDFKENGITEEKSKSEESKRMEPIAIIITDTEISEF
 DVTKSKNVPKQFLISAENEQVGVFANDNGFEDRTSEQYETLLIETASSLVKNAIQLSIEQLVNEMASDDN
 KINLLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6122_d06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

ACCN: NM_004857

ORF Size: 1281 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_004857.2](#), [NP_004848.2](#)
RefSeq Size: 2601 bp

RefSeq ORF: 1284 bp

Locus ID: 9495

UniProt ID: [P24588](#)
Cytogenetics: 14q23.3

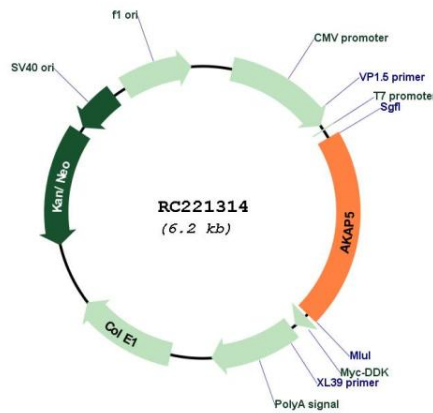
Domains: PkinA_anch

Protein Families: Druggable Genome

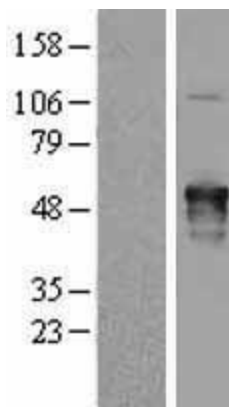
MW: 46.9 kDa

Gene Summary: The A-kinase anchor proteins (AKAPs) are a group of structurally diverse proteins, which have the common function of binding to the regulatory subunit of protein kinase A (PKA) and confining the holoenzyme to discrete locations within the cell. This gene encodes a member of the AKAP family. The encoded protein binds to the RII-beta regulatory subunit of PKA, and also to protein kinase C and the phosphatase calcineurin. It is predominantly expressed in cerebral cortex and may anchor the PKA protein at postsynaptic densities (PSD) and be involved in the regulation of postsynaptic events. It is also expressed in T lymphocytes and may function to inhibit interleukin-2 transcription by disrupting calcineurin-dependent dephosphorylation of NFAT. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC221314



Western blot validation of overexpression lysate (Cat# [LY401520]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221314 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).