

## Product datasheet for **RG221314**

### AKAP5 (NM\_004857) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AKAP5 (NM_004857) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AKAP5
Synonyms:	AKAP75; AKAP79; H21
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221314 representing NM_004857 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAACCACAATTCAGAAATTCATGTAGAAAAAAGGATGAGAAGAGATCAGCAGAAGGTAGTCCTG  
GGGCTGAAAGGCAGAAGGAAAAGGCATCCATGCTTTGCTTCAAGAGAAGAAAGAAAGCAGCCAAAGCACT  
GAAGCCCAAAGCTGGCTCTGAAGCTGCTGATGTGGCAAGGAAGTCCACAAGAAGCAGGAGCTTCTGAT  
CAGCCAGAGCCACACGGGGGCTGGCCTCACTCAAACGTCTTGTAACACGCAGGAAAAGGTCAGAGT  
CTTCAAAGCAGCAAAAGCCATTGGAGGGTCAAATGCAACCTGCAATAAATGCTGAGGATGCTGATCTTTC  
TAAGAAAAAGGCAAAATCTAGACTTAAGATTCCCTGCATAAAATCCCAAGAGGGCCAAAAGGAGTAAT  
CATTCCAAAATTATAGAAGACTCAGACTGCAGCATCAAAGTCCAGGAAGAAGCTGAAATTTGGATATAC  
AAACACAGACCCCATGAAATGATCAGGCAACAAAGGCTAAGTCAACCCAGGATCTAAGTGAAGGCATCTC  
ACGGAAAGATGGTGATGAGGTCTGTGAATCAAATGTGAGCAATAGCATAAATTCTGGAGAGAAAGTATT  
TCAGTAGAACTTGGATTAGATAATGGGCATTCTGCTATTCAAACGGGAATCTAATCCTTGAAGAAATTG  
AAACGATCAAGGAAAAACAAGATGTTCAACCCAGCAAGCAAGCCACTTGAACTTCAGAAACAGACCA  
TCAGCAGCCAGTACTTTCTGATGTTCTCTCTTACCTGCAATTCAGATCAACAAATGTGAAGAAGCC  
AGTAACAGTACCCTAGAAAGTGCACCAATGAAAAGACTAGAAAGTACAGAGATTGTAGCTGAAGAAA  
CTAAGCCAAAAGATACTGAATTGAGCCAAGAATCAGATTTTAAAGAAAATGGGATCACTGAAGAGAAATC  
CAAATCAGAAGAAAGCAAAAGAATGGAGCAATTGCTATTATTATTACAGACACTGAAATCAGTGAATTT  
GATGTTACAAAATCTAAAATGTCCCTAAGCAATTCCTAATTTACAGTGAATAATGAGCAAGTAGGGGTTT  
TTGCTAATGATAATGGTTTTGAGGATAGAACTTCAGAACAATAGAAACACTCTTAATTGAACAGCCTC  
TTCTCTAGTCAAGAATGCTATTCAGTTGTCAATAGAACAGCTGGTTAATGAAATGGCCTCTGATGATAAT  
AAAATAACAATCTTCTACAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



**Protein Sequence:** >RG221314 representing NM\_004857  
Red=Cloning site Green=Tags(s)

METTISEIHVENKDEKRS AEGSPAERQKEKASMLCFKRRKKAALKPKAGSEAADVARKCPQEAGASD  
 QPEPTRGAWASLKRLVTRRRKRSESSKQKPLEGEMQPAINAEDADL SKKKAKSRLKIPCIFPRGPKRSN  
 HSKIIEDSDCSIKVQEEAEILDIQTQTP LNDQATKAKSTQDLSEGISRKDGEVCESNVSNITSGEKVI  
 SVELGLDNGHSAIQGTGLILEE IETIKEKQDVQPQQASPLETSETDHQQPVLSDVPPLPAIPDQQIVEEA  
 SNSTLESAPNGKDYESTEIVA EETKPKDTEL SQESDFKENGITEEKSKSEESKRMEPIAIIITDTEISEF  
 DVTKSKNVPKQFLISAENEQVGVFANDNGFEDRTSEQYETLLIETASSLVKNAIQLSIEQLVNEMASDDN  
 KINLLQ

TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**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](#)

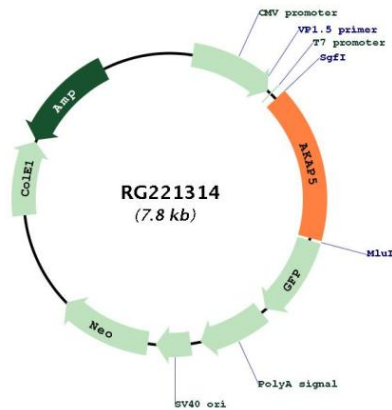
**Cytogenetics:** 14q23.3

**Domains:** PkinA\_anch

**Protein Families:** Druggable Genome

**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 RG221314