

## Product datasheet for **SC117102**

### AKAP5 (NM\_004857) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** AKAP5 (NM\_004857) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** AKAP5  
**Synonyms:** AKAP75; AKAP79; H21  
**Mammalian Cell Selection:** None  
**Vector:** [pCMV6-XL5](#)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_004857 edited  
 ATGGAACCAACAATTTTCAGAAATTCATGTAGAAAACAAGGATGAGAAGAGATCAGCAGAA  
 GGTAGTCTGGGGCTGAAAGGCAGAGAAAAGGCATCCATGCTTTGCTTCAAGAGAAGA  
 AAGAAAGCAGCCAAAGCACTGAAGCCCAAAGCTGGCTCTGAAGCTGCTGATGTGGCAAGG  
 AAGTGTCACAAGAAGCAGGAGCTTCTGATCAGCCAGAGCCACACGGGGGCTGGGCC  
 TCACTCAAACGTCTTGTAAACACGAGGAAAAGGTCAGAGTCTTCAAAGCAGCAAAAGCCA  
 TTGGAGGGTGAAATGCAACCTGCAATAAATGCTGAGGATGCTGATCTTTCTAAGAAAAAG  
 GCAAAATCTAGACTTAAGATTCCTGCATAAAATTCCTAAGAGGGCCAAAAAGGAGTAAT  
 CATTCCAAAATTATAGAAGACTCAGACTGCAGCATCAAAGTCCAGGAAGAAGCTGAAATT  
 TTGGATATACAAACACAGACCCCATTTGAATGATCAGGCAACAAAGGCTAAGTCAACCCAG  
 GATCTAAGTGAAGGCATCTCACGAAAGATGGTGTGAGGTCTGTGAATCAAATGTGAGC  
 AATAGCATAACTTCTGGAGAGAAAGTGATTTTCAGTAGAACTTGGATTAGATAATGGGCAT  
 TCTGCTATTCAAACGGGAACCTAATCCTTGAAGAAATGAAACGATCAAGGAAAAACAA  
 GATGTTCAACCCAGCAAGCAAGCCACTTGAACTTCAGAAACAGACCATCAGCAGCCA  
 GTACTTTCTGATGTTCTCTTTACCTGCAATTCAGATCAACAAATTTGTGGAAGAAGCC  
 AGTAACAGTACCCTAGAAAGTGCACCAATGGAAAAGACTATGAAAGTACAGAGATTGTA  
 GCTGAAGAACTAAGCCAAAAGATACTGAATTGAGCCAAGAATCAGATTTTAAAGAAAAT  
 GGGATCACTGAAGAGAAATCCAAATCAGAAGAAAGCAAAAAGAAATGGAGCCAATTGCTATT  
 ATTATTACAGACACTGAAATCAGTGAATTTGATGTTACAAAATCTAAAAATGTCCTTAAG  
 CAATTTCTAATTTTCAGCTGAAAATGAGCAAGTAGGGGTTTTTGCTAATGATAATGGTTTT  
 GAGGATAGAATTCAGAACAAATGAAACACTCTTAATTGAAACAGCCTCTTCTCTAGTC  
 AAGAATGCTATTCAAGTTGCAATAGAACAGCTGGTTAATGAAATGGCCTCTGATGATAAT  
 AAAATAACAATCTTCTACAGTGA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_004857 unedited TTTGTAATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCGCGGCTCCCTGGA GGCCTGGGCGGCGGGCCCCGCGAGCGCGCCGCCACCTCGGGAGCAGTGTGGCCAAGGAC CCCGACGCCCTACGTTGATCTTTAAATAAAGCAAAAATTTATCCAAAGAAGGGCTTTCAT CAAGAAATTAAGAGAGAAAATTACAAGCCATAGAGAACTGGGCATTTCTATACTAGAGA AACCACCTAAAACAACCTGTATGGAGTAAGATGAAAGGTATGAATATGCCTGGAAGAAATT TTACCTAGTGTGACATTTTTGCTCATCTTTTGTACAAAAGGCTGCTAAGGAAGAGAGA ATACAGTTTTCTAGAGAATAAGAGTGCAGTGTAATAATGGAAACCACAATTTTCAGAAATT CATGTAGAAAACAAGGATGAGAAGATCAGCAGAAGGTAGTCCTGGGGCTGAAAGGCAG AAGGAAAAGGCATCCATGCTTTGCTTCAAGAGAAGAAAGAAAGCAGCCAAAGCACTGAAG CCCAAAGCTGGCTCTGAAGCTGCTGATGTGGCAAGGAAGTCCACAAGAAGCAGGAGCT TCTGATCAGCCAGAGCCACACGNNGGCCTGGNGCCTCAACACGCTTTGTAACAC GCAGGAAAAGGTCAGAGTCTTCAAAGCAGCAAAAGCCATTGGGAGGGTAAATGCAAACC TGCATAAATGCTGNAGGATGCTGATCTTTCTAAGAAAAGGGCAAATCTAGACTTAAGATT CCCTGCATAAAATCCCAAGAGGGCCAAANAGGGAGTATCATTCCCAAATATAGAAGACTC AGACTGCAGCCATCAAGTCCAGGAAGAAGCTGAATTNTNGGATATACAAACACCAGACCC ATTGAATGATCAGGCACC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_004857
<b>Insert Size:</b>	2630 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>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_004857.2</a> , <a href="#">NP_004848.2</a>
<b>RefSeq Size:</b>	2601 bp
<b>RefSeq ORF:</b>	1284 bp
<b>Locus ID:</b>	9495
<b>UniProt ID:</b>	<a href="#">P24588</a>
<b>Cytogenetics:</b>	14q23.3
<b>Domains:</b>	PkinA_anch
<b>Protein Families:</b>	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]