

## Product datasheet for **MG222726**

### Akap5 (NM\_001101471) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Akap5 (NM_001101471) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Akap5
Synonyms:	3526401B18Rik; AKAP-5; AKAP 150; AKAP150; BB098886; Gm258; P150
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG222726 representing NM\_001101471, **codon optimized**.  
**Due to the complexity of NM\_001101471, the ORF clone is codon optimized for mammalian Expression.**  
**The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.**

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAACTAGCGTCAGTGAAATCCAGGTGGAGACGAAAGACGAGAAGGGCCCGTTGCCGCTCCCCAC  
 AGAAGGAGAGGCAGGAGCGGAAGACCGCAACGCTTTGTTTTAAGCGCAGGAAGAAAGCCAACAAAATAA  
 ACCTAAAGCCGGTCCAGAACCAGGAGGAGACAAAGAAGCATACCCCTGAGGCTGGCGGCAGCGCCAG  
 AGGCAGCTGCCGGGCTGGGCTTCAATAAAGGGCCTCGTGACCCACCGAAGAGGAGCGAGCCAGCCA  
 AGAAACAGAAGCCTCCAGAGGCTGAGGTCCAGCCAGAGGACGGGGCTTTGCCTAAAAAAGGCCAAGTC  
 TAGGCTGAAGTCCCGTGCCTGAGGTTTTCCCGCGGCGCTAAGAGATCTAGGCACTCAAAGTTGACCGAA  
 GATTCCGGATACGTGCGCGTGCAGGGGGAGGCCGATGATTTGGAGATTAAGCTCAGACTCAGCCGACG  
 ACCAAGCCATCCAGGCTGGTTCAACACAGGGACTCCAGGAAGGCGTTCTGGTGCAGGATGGAAAAAGAG  
 CCAGGAGAGTCATATCAGCAACTCCGTGACAAGCGGCGAGAACGTCATTGCTATTGAACTGGAAGTTGAG  
 AATAAGTCATCAGCCATCCAGATGGGAACCCCGAGCTGGAGAAAGAGACTAAGTTATTACTGAAAAGC  
 CATCTGTGCAGACACAGCGGGCTAGCCTCCTCGAGAGCTCTGCGGCCGGAAGTCCCGATCTGTGACTTC  
 TGCCGCTCCACCTAGCCAGCAACTACCCAGCACTACTGGAGGAGCCCTCCAATGGCATAACGGAA  
 TCTGCCCATCAGGCAAAGATGACCGGAGGAAAACAGCTGCTGAGGAGAAGAAATCAGGCGAGACAGCCT  
 TGGGTCAAGCAGAGGAAGCCGCTGTGGCCAGGCTGATAAAGAGCACTGAGCCAGGCTGGAGAAGCGAC  
 AGCCGGCCACCCAGAGGAGGCCACCGTCAATCAGGCCGAATCACAGGCCAAGGAGGAAAGTTGTCCAG  
 GCCGAAGAGACAACAGTAGCACAAGCAAGGAGACTGTCTGTCCAGGCCAAGGAGGTTGAGCTCTCAC  
 AGGCCAAGAAGGCGACAGTAGGTCAGGCCGAGGAGGCCACCATTGACCACACTGAGAAAGTCACTGTAGA  
 CCAGGCTGAAGAGACAACAGTCGGACAAGCAGAGGAGGCGACTGTGGTCAAGCCGCGAAGCCATTCTG  
 TCACAAGCCAAGGAAGCAACCGTAGTTGGCCAGGCCGAGGAAGCTACCGTGGACAGGCGAGGAAGCTA  
 CCGTGGCCAGGCAGAGGAGGCCACCGTGGGCCATACAGAAAAGTTACTGTGGATCAGGCCGAGGAAGC  
 CACTGTGGCCAGGCCGAGGAGGCGACTTAGGCCAGGCCGAGGAGGCCACAGTTGACTGGCCGAGAAG  
 CCAACAGTCGGGCAAGCCGAGGAAGCCACTGTTGGACAAGCAGAAGAGGCCACTGTGGCCATACTGAAA  
 AGGTTACAGTGGACCAGGCCGAGGAGGCCACCGTGGGACAGGCTGAGGAAGCTACTGTTGGGCATACCGA  
 GAAGGTCACAGTGGATCACGCAGAAGAGGCTACGGTTGGCCAGGCCGAGGAGGCAACCGTGGGCCAGG  
 GAGAAGGTCACAGTGGATCATGCCGAGGAAGCAACAGTGGGCCAGGCCGAGGAAGCAACCGTGGGCCAGG  
 CAGAAAAAGTCACTGTGGATCATGCTGAAGAGGCCACTGTGGTCAAGCAGAGGAAGCCACCGTGGGTCA  
 AGCCGAAAAGGTAACAGTCGATCAGGCCGAGGAGCCACCGTCGATCAAGCCGAGGAGGCTATCTTAGC  
 CATGCCCTGATCTGAAGGAGAACGGCATTGATACAGAGAAGCCGAGATCCGAGGAGCTAAACGGATGG  
 AACCCATTGCAATAATCATAACCGATACAGAGATCTCCGAGTTCGACGTGAAGAAGAGTAAGAATGTACC  
 AAAGCAGTTCCTGATAAGCATGGAGAATGAGCAGGTCGGCGTGTGGCCAAATGACTCAGATTTTGAAGGA  
 AGGACGAGCGAACAGTACGAGACTCTGCTCATAGAAACTGCCAGTAGTCTCGTTAAGAATGCTATCGAGT  
 TGCTGTGGAGCAACTTGTTAACGAAATGGTGTGAGAAGATAATCAGATCAATACTCTGTTCCAG

**ACCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG222726 representing NM\_001101471  
 Red=Cloning site Green=Tags(s)

METSVSEIQVETKDEKGPVAASPQKERQERKTATLCFKRRKKANKTKPKAGSRTAEETKKHTPEAGGSGQ  
 RQPAGAWASIKGLVTHRRSEPAKKQKPEAEVQPEDGALPKKKAKSRLKFPCLRFSRGAKRSRHSKLTE  
 DSGYVRVQGEADDLEIKAQTQPDDQAIQAGSTQGLQEGVLVRDGKKSQESHISNSVTSGENVIAIELELE  
 NKSSAIQMGTPLEKETKVITEKPSVQTQRASLLESSAAGSPRSVTSAPPSPATTHQHSLEEPSNGIRE  
 SAPSGKDDRRKTAEEKKSGETALGQAEEAAVGQADKRALSQAGEATAGHPPEEATVIQAESQAKEGKLSQ  
 AEETTVAQAKETVLSQAKEGELSQAKKATVGQAEAEATIDHTEKVTVDQAEETTQVQAEAEATVGQAGEAIL  
 SQAKEATVVGQAEAEATVDRAEEATVGQAEAEATVGHTEKVTVDQAEAEATVGQAEAEATVDWAEK  
 PTVGQAEAEATVGQAEAEATVGHTEKVTVDQAEAEATVGQAEAEATVGHTEKVTVDHAEAEATVGQAEAEATVQAE  
 EKVTVDHAEAEATVGQAEAEATVGQAEKVTVDHAEAEATVGQAEAEATVGQAEKVTVDQAEAEATVQAEAEISS  
 HAPDLKENGIDTEKPRSEESKRMEPIAIIITDTEISEFDVKKSKNVPKQFLISMENEQVGVFANDSDFEG  
 RTSEQYETLLIETASSLVKNAIELSVEQLVNMVSEDNQINTLFQ

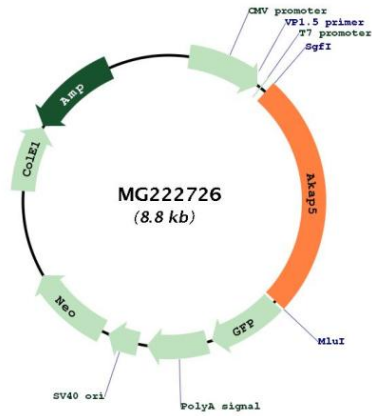
TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-Mlul



<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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><a href="#">NM_001101471.1</a>, <a href="#">NP_001094941.1</a></u>
<b>RefSeq Size:</b>	6685 bp
<b>RefSeq ORF:</b>	2238 bp
<b>Locus ID:</b>	238276
<b>UniProt ID:</b>	<u><a href="#">D3YVF0</a></u>
<b>Cytogenetics:</b>	12 C3
<b>Gene Summary:</b>	May anchor the PKA kinase to cytoskeletal and/or organelle-associated proteins, targeting the signal carried by cAMP to specific intracellular effectors.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG222726