

## Product datasheet for **MG221217**

### Akap14 (NM\_001033785) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Akap14 (NM_001033785) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Akap14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG221217 representing NM\_001033785, **codon optimized**.  
**Due to the complexity of NM\_001033785, 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)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGTAAACAAAAAATTCCCAATCAGAAAGCAAAGATCGTTGAAAACACATCAACCGCCAAGACTA  
 AAAAACCCGAAGCACCCGAACCCAAACATGTTACTGAGCCTAAGGACTCAAATCCGTGGAGGATCCCAA  
 GATTCTGTGACCGACCAGAAGGAGAAGAAGACGGTAACACCATTGCGGAGCCCAAGGACAAGAAGTCC  
 GAAACCGAACCCAAAGAGAAGAAGACTGTGACCATATCTGACCCGAAAGCCAAGAAGCCAGCGATCGAGA  
 AGGACAAAACGAACGGTACATTCGTGACCGAGGTAAAAGACAAGAGGATCGTTACGGATACCAAGGAGAA  
 TCGCATCGCTCCATCGACACAAAGGAAAAGGTGCCAGTAGTGGTGCCCGAAGTGAAGGAGAAGCGGGTG  
 CAGCTGTTGGATCCAAAGGAGAAGGTCGCGGTGCTGCCTACAACACCAATCGGTTCCGTGGCCCATGTCC  
 CTCACGCACCACTGTGCGACACACTGAGCATGCAGCCCCGCTAAGCCTGTGGCCCCGGCTAAGCCCGT  
 CGCCCCGTGGCACCTGCCAAACCCGTCGCTCCAGTGCCACCCGCTAAGCCTGTGTCCTGTGGCCCCCT  
 GCCAAACCCGTCGCACCTGCCGCCCTGTACATCAGTAGTCAGAGCCGTGCCAGCCGACCAAGTACTC  
 CAGTGGCTCCAGTGTCTCAGCTGTACCAGTGGTGCCAGCTGCCCTGTGCACCAGCCGACCCCGTCTG  
 GCCCGCCGTCCCGTCGCTCCCGTAGCCCCAGCCCTTCCCGTGGCTCCTGTGGCGCCGTAGCCCCAGCT  
 CTGCCCCGTGGCCCCCTGCCGTCCCGTGGCTCCCGCCGTGCTCGCCCCAGTCGTGCCGAGGTAAGG  
 AGAAAATCCCGTCTCCGAGGTCAAGGGTAAGAAGGAGGTGCCCTCCCGTCCCTGAACCTAAGGAAAT  
 CAAAGCAAGCTCTTTTGGCCCGAAATTAAGTGAAGAAAGTTGGCAGTGAATTAAGCAAAAGGCTCAC  
 GTCAAAGATGTCAAAGAGAAGAAAATTGTGCCTGAGGTTAAGGAGAAGAAGCCGGTCGTGGTTAAGAAAA  
 AGGACGGTGCATCTGAGGTGGCTCGACTGTGGTGGATGGGGTATGGCCGCCGAGTAGAGATGGTGGAA  
 AGAAGCTCGAACCCAATAAAAAATTAAGTGGTTGACCCACGGCGAATTCACCTCTGAGAAAGGAAGG  
 AAGCAGATCGAAAAGTTCGTGTCTACATGGGAATTCAGAACCGTGGGTGACTATGCAGATTTTATCG  
 AGAAAAAAGACCTGATTCATAGCTATCATTATATATCGAGTCAGGTGGTCCGCTCCTACTGCAGTGAG  
 GCCTATGGCCCGAGTAAGCGCTAACGCGCTGTTACAATTAAGTTAACAAGTCCAAGCCTCGAGATATG  
 CCCGTCGACGTCTCTACATCTTCGAAAACAGTGAAGTGTGCAAAAGACCCGGTGAGATCAGGTTTCGCG  
 AACAGTGGCTGCGCGACATAACCGAAACGAAGCACATTCTGCTCGAATCTATCCCATCAAGTAGTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG221217 representing NM\_001033785  
 Red=Cloning site Green=Tags(s)

MSNKKKFPNQKAKIVENTSTAKTKKPEAPEPKHVTEPKDSKSVEDPKIPVTDQKEKKTVTTIAEPKDKKS  
 ETEPKKKTVTISDPKAKKPAIEKDKRTVTFVTEVKDKRIVDTKENRIASIDTKEKVPVVPEVKEKRV  
 QLLDPKEKVAVLPTTPIGSAHVPHAPPVAHTEHAAPAKPVAPAKPVAPVAPAKPVAPVAPAKPVVAP  
 AKPVAPAAPVTSVVRAPAAPVTPVAPVAPVPAAPVAPVAPVAPVAPVAPVAPVAPVAPVAPVAPVAP  
 LPVAPVAPVAPVAPVAPVPEVKQKIPVSEVKGKKEVPLRVELKEIKASSFAPEIKVKKVGEIKQKAH  
 VKDVKEKKIVPEVKEKKPVVVKKDGASEVARTVVDGVMMAAVEMVEEARNPIKNIKWLTHGEFTPEKGR  
 KQIEKFVSTWEFQNRWVYYADFIEKKDLIHSYHYIYRVRWSAPTAVRPMARVSANALFTIKFNKSKPADM  
 PVDVSYIFENSELLQRPEIRFREQWLRDITETKHILLESIPFKVV

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul



<b>OTI Disclaimer:</b>	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>
<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>	<a href="#">NM_001033785.2</a> , <a href="#">NP_001028957.1</a>
<b>RefSeq Size:</b>	1792 bp
<b>RefSeq ORF:</b>	1611 bp
<b>Locus ID:</b>	434756
<b>Cytogenetics:</b>	X A3.3
<b>Gene Summary:</b>	This gene encodes a member of A-kinase anchoring proteins (AKAPs), a family of functionally related proteins that target protein kinase A to discrete locations within the cell. The human ortholog of this gene has been characterized. It is reported to be enriched in airway cilia and to regulate ciliary beat frequency by anchoring the protein kinase A holoenzyme near substrates in the axoneme. [provided by RefSeq, May 2013]