

## Product datasheet for **MG204697**

### Akr1c21 (NM\_029901) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Akr1c21 (NM_029901) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Akr1c21
Synonyms:	9430025F20Rik; AI315367
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG204697 representing NM_029901 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAC**CCAAAT**GT**CATT**GTGTCATATTGAATGATGGTAACTTCATTCCAGT**GCTGGGTTTTGGT**ACTG  
CTCTTCTGTAGAGTGTCCCAAGAGTAAAGCTAAGGAGCTCACCAAAATAGCTATAGATGCTGGTTTTCCA  
TCACTTTGATTCTGCTTCTGTCTATAATACCGAAGATCGTGTAGGAGAGGCCATCAGAAGCAAGATTGCT  
GATGGCACTGTAAGGAGAGAAGATATATTTACACCTCAAAGTTTGGTGTACTAGCCTTCGCCCAGAAC  
TTGTGAGAGCTTCTTGGTACGGTCACTGCAAAA**ACTTCAGTTCGATTATGTGGACCTGTATCTCATTCA**  
TTACCCAATGGCCCTGAAACCAGGAGAAGAAAATTTCCAGTAGATGAACATGGAAAATTAATATTTGAC  
AGAGTGGACCTCTGTGCCACCTGGGAGGCCATGGAGAAGTGAAGGATGCAGGACTAACCAAGTCCATTG  
GGTGTCTAACTTAACTCTAGACAGTTGGAGATGATTCTGAATAAGCCTGGGCTCAAGTACAAGCCGGT  
ATGCAACCAGGTAGAATGCCATCCTTATCTCAACCAAA**TGAACTTCTGGATTTCTGCAAAATCAA**AGAT  
ATTGTATTGGTTGCCTATGGTGTCTAGGAACACAACGATATGGAGGATGGGTAGACCAGAATCCCCCTG  
TTCTCTGGATGAACCAGTCTTGGTCCATGGCAAAAAAATAATCGAACTCCAGCCTTGATTGCCCT  
TCGCTACCAGTTACAGCGTGGGATTGTGGTCTCAACACCAGTCTCAAAGAGGAGCGGATCAAAGAGAAC  
ATGCAGGTTTTGAATTCAGCTGAGTTCAGAGGATATGAAAGTCTTGATGGCCTGAACAGAAAATATGC  
GATACATACCTGCTGCCATTTTCAAGGGCCACCCTAATTGGCCATTTTTGGATGAATAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG204697 representing NM\_029901  
 Red=Cloning site Green=Tags(s)

MNSKCHCVILNDGNFIPVLGFGTALPVECPKSKAKELTKIAIDAGFHHFDSASVYNTEDRVGEAIRSKIA  
 DGTVRREDIFYTSKVVCTSLRPELVASLVRSLQKLQFDYVDLYLIHYPMALKPGEENFPVDEHGKLI  
 RVDLCATWEAMEKCKDAGLTKSIGVSNFNSRQLEMILNKPGLKYKPVCNQVECHPYLNQMKLLDFCKSKD  
 IVLVAYGVLGTQRYGGWVDQNSPVLLEPVLGSMACKYNRTPALIALRYQLQRGIVVLTSLKEERIKEN  
 MQVFEFQLSSEDMKVL DGLNRNMRYPAAIFKGHPNWPFLEDEY

TRTRPLE - GFP Tag - V

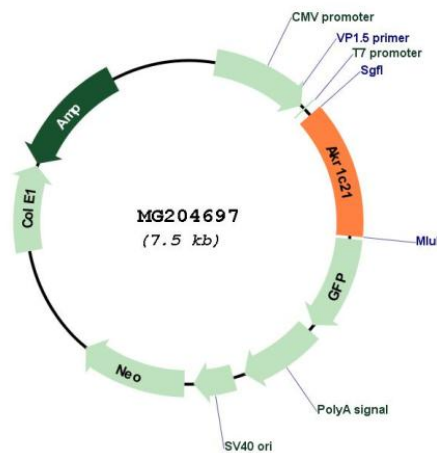
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_029901

**ORF Size:** 969 bp

<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_029901.2</a> , <a href="#">NP_084177.2</a>
<b>RefSeq Size:</b>	1222 bp
<b>RefSeq ORF:</b>	972 bp
<b>Locus ID:</b>	77337
<b>UniProt ID:</b>	<a href="#">Q91WR5</a>
<b>Cytogenetics:</b>	13 A1
<b>Gene Summary:</b>	NADP-dependent 17-alpha-hydroxysteroid dehydrogenase that converts 5-alpha-androstane-3,17-dione into androsterone. Has lower 3-alpha-hydroxysteroid dehydrogenase activity. Has broad substrate specificity and acts on various 17-alpha-hydroxysteroids, 17-ketosteroids, 3-alpha hydroxysteroids and 3-ketosteroids. Reduction of keto groups is strictly stereoselective. Reduction of 17-ketosteroids yields only 17-alpha-hydroxysteroids. Likewise, reduction of 3-ketosteroids yields only 3-alpha-hydroxysteroids.[UniProtKB/Swiss-Prot Function]