

## Product datasheet for **MG204723**

### Akr1d1 (NM\_145364) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Akr1d1 (NM_145364) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Akr1d1
Synonyms:	MGC25814
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG204723 representing NM_145364 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACCTCAGCGCTGCACACCACCAAATATCCCTAAGTGATGGGAACAACATCCACTCATTGGGCTTG  
GAACCTACTCAGATCCTAGACCGGTCCCTGGGAAGACCTATGTGGCAGTGAAGACAGCTATTGATGAGGG  
GTACCGGCACATTGATGGCGCCTATGTTTACCACAATGAGCATGAAGTCGGTGAGGCCATCAGAGAAAAG  
ATAGCAGAAGGGAAGGTAAGAGGGAAGAGATCTTCTACTGCGGAAAGTTATGGAATACAGAGCATGTCC  
CATCAATGGTCTCCAGCCCTGAAAGGACGCTAAAGGCCCTCAAAGTACATAGACCTTTATAT  
TATCGAACTGCCCATGGCCTTTAAGCCTGGAAAGGAAATTTACCCCTAGAGATGAAAATGGCCGAATTATA  
TATGACAAAACAAATCTGTGTGCCACGTGGGAGGCATTGGAAGCTTGCAAAGATGCTGGCTTGGTGAAT  
CCCTTGGGGTGTCTAATTTTAAACCGCAGGCAGCTGGAGCTCATCTTGAACAAGCCAGGACTCAAGTACAA  
ACCAGTCACTAACCAGGTGGAGTGCCACCCGATTTTACCCAGACAAAACCTTTGAAATTTGCCAGCAG  
CATGACATCGTCATTGTCGCACATAGCCCTTAGGGACCTGCCGCAACCCATCATGGGTGAACGTTTCTT  
CTCCACCCTTGTTAAATGACGAACCTCTAACCTCACTGGGAAAAAAGTACAATAAGACACAAGCTCAAT  
TGTGTTGCGTTTCAACATCCAGCGAGGGATAGTTGTCATTCTCTAAAAGCTTTACCCCGAAAGGATCAAA  
GAAAACCTTTCAGATCTTTGACTTTTCTCTCACGGAAGAAGAAATGAAGGACATTGATGCCTTGAATAAAA  
ATGTCGCTATGTGGAGTTGCTCATGTGGAGTGACCATCTGAATACCCATTTTCATGACGAATAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG204723 representing NM\_145364  
 Red=Cloning site Green=Tags(s)

MNLSAAHHQISLSDGNNIPLIGLGTYS DPRPVP GKTYVAVKTAIDEGYRHIDGAYVYHNEHEVEGEAIREK  
 I AEGKVKREEIF YCGKLWNTEHVPSMVL PALERTLKALKLDYIDL YIIELPMAFKPGKEIYPRDENGRII  
 YDKTNLCATWEALEACKDAGLVKSLGVSFNRRQLELILNKPGLKYKPVNTQVECHPYFTQTKLLKFCQQ  
 HDIVIVAHSP L GTCRNP SWNVVSSP L LND ELL TSLGKKYNKTQAQIVLRFNIQRGIVVIPKSFTPERIK  
 ENFQIFDFSLTEEMKDIDALNKNVRYVELLMWSDHPEYPFHDEY

TRTRPLE - GFP Tag - V

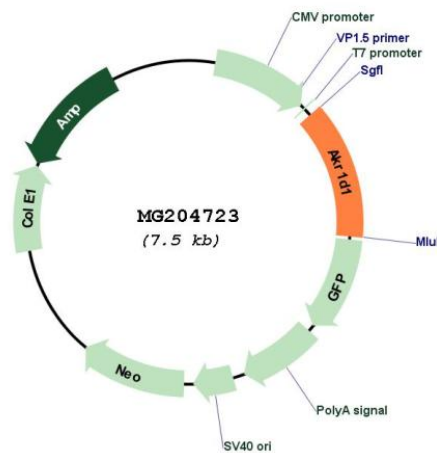
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_145364

**ORF Size:** 975 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_145364.1</a> , <a href="#">NP_663339.1</a>
<b>RefSeq Size:</b>	2291 bp
<b>RefSeq ORF:</b>	978 bp
<b>Locus ID:</b>	208665
<b>UniProt ID:</b>	<a href="#">Q8VCX1</a>
<b>Cytogenetics:</b>	6 B1
<b>Gene Summary:</b>	Catalyzes the stereospecific NADPH-dependent reduction of the C4-C5 double bond of bile acid intermediates and steroid hormones carrying a delta(4)-3-one structure to yield an A/B cis-ring junction. This cis-configuration is crucial for bile acid biosynthesis and plays important roles in steroid metabolism. Capable of reducing a broad range of delta-(4)-3-ketosteroids from C18 (such as, 17beta-hydroxyestr-4-en-3-one) to C27 (such as, 7alpha-hydroxycholest-4-en-3-one).[UniProtKB/Swiss-Prot Function]