

## Product datasheet for **RN200557**

### **Akr7a2 (NM\_134407) Rat Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Akr7a2 (NM\_134407) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Akr7a2  
**Synonyms:** Aiar  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN200557 representing NM\_134407  
**Red**=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGTCCCGGTCTCCGGCACCCCGCGCCGTCTCTGGCGCCCTCTCCGGCCCGGTACGGTGTCTGGGCACCA  
TGGAGATGGGGCGCCGCATGGATGCGAGTGTAGCGCTGCGACCGTACCGCCTTCTGGAGCGCGCCCT  
CAACGAGCTGGACACGGCCTTCAATGATTGCGACGGCCAGTCCGAAAGCATCCTGGGCAGCTGGGGCTC  
GGGCTGGGCAGCGGCGACTGCACAGTAAAATTGCCACCAAGGCCAACCTTGGGACGGGAAGTCGCTGA  
AGCCTGACAGTGTCCGGTCCCAATTAGAGACGTCATTGAAGCGGCTGCAGTGTCCCGGGTGGACCTCTT  
CTACTTACACGCTCCTGACCACGGCACTCCTATCGTGGAGACCCTGCAGGCTGCCAACAGCTGCATCAG  
GAGGGCAAGTTTGTGGAGCTTGGCTTGTCCAACATGCCCTCTGGGAGGTAGCCGAGATCTATACCTCT  
GTAAAAGCAACGGCTGGATCCTGCCAAGTGTACCAGGGCATGTACAACGCCACCACCCGGCAGGTGGA  
GACTGAGCTCCTCCCCTGCCTCAGATACTTCGGACTGAGGTTCTATGCCTACAACCCTTTGGCTGGAGGC  
CTGCTGACTGGCAAATACAGATATGAAGACAAGGATGGAAACAGCCCGAGGGCCGCTTCTTTGGGAATA  
GCTGGTCTGAGACCTACAGGAACCGCTTCTGGAAGGAACACCCTTTGAGGCCATTGCCCTGGTAGAAAA  
GGCCCTGAAGACCACCTATGGCACCAGTGCCTCCAGCATGACCTCGGCTGCCCTGGCTGGATGTACCAT  
CACTCACAGCTCCAGGGCACCCGAGGGGACGAGTCATCTTGGGCATGTCCAGCCTGGAGCAGCTGGAGC  
AGAACTTGGCGGCCACTGAGGAAGTCCCTGGAGCCCGTGTCTGGAGGCCCTTAACCAAGCCTGGAA  
CGTGGTCGCCACGAGTGTCCCACTACTTCAGATAG

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_134407



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<b>Insert Size:</b>	1017 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_134407.1</a> , <a href="#">NP_599234.1</a>
<b>RefSeq Size:</b>	1272 bp
<b>RefSeq ORF:</b>	1017 bp
<b>Locus ID:</b>	171445
<b>UniProt ID:</b>	<a href="#">Q8CG45</a>
<b>Cytogenetics:</b>	5q36
<b>Gene Summary:</b>	Catalyzes the NADPH-dependent reduction of succinic semialdehyde to gamma-hydroxybutyrate. May have an important role in producing the neuromodulator gamma-hydroxybutyrate (GHB). Has broad substrate specificity. Can reduce the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. Acts as a 2-carboxybenzaldehyde reductase.[UniProtKB/Swiss-Prot Function]