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# Product datasheet for RR205531L4

## Akr1cl (NM_001109900) Rat Tagged Lenti ORF Clone

### Product data:

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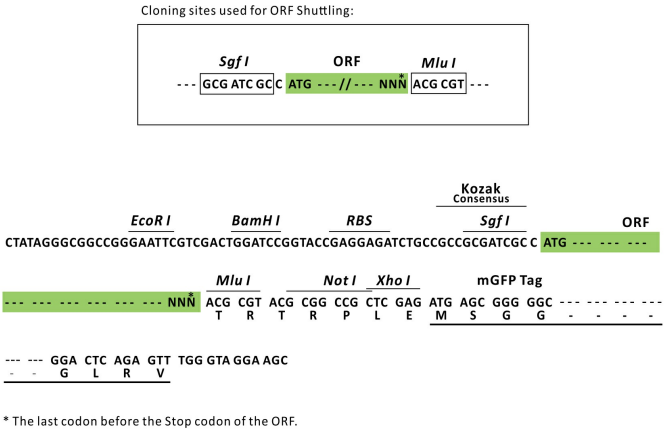
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Akr1cl (NM_001109900) Rat Tagged Lenti ORF Clone |
| **Tag:** | mGFP |
| **Symbol:** | Akr1cl |
| **Synonyms:** | Akr1cl1 |
| **Mammalian Cell Selection:** | Puromycin |
| **Vector:** | pLenti-C-mGFP-P2A-Puro (PS100093) |
| **E. coli Selection:** | Chloramphenicol (34 ug/mL) |
| **ORF Nucleotide Sequence:** | The ORF insert of this clone is exactly the same as(RR205531). |
| **Restriction Sites:** | SgfI-MluI |
| **Cloning Scheme:** | |

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| **ACCN:** | NM_001109900 |
| **ORF Size:** | 972 bp |

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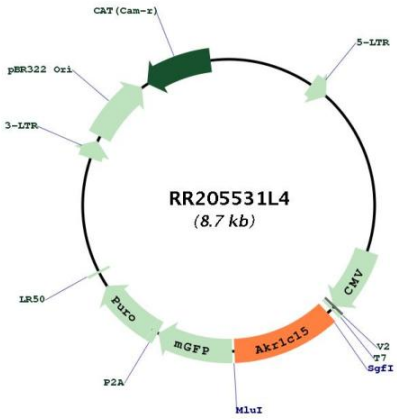
| **OTI Disclaimer:** | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info |
| **OTI Annotation:** | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene. |
| **Components:** | 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). |
| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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. |
| **RefSeq:** | NM_001109900.1, NP_001103370.1 |
| **RefSeq Size:** | 1302 bp |
| **RefSeq ORF:** | 975 bp |
| **Locus ID:** | 361267 |
| **UniProt ID:** | D3ZF77 |
| **Cytogenetics:** | 17q12.2 |
| **Gene Summary:** | Catalyzes the NADPH-dependent reduction of a variety of substrates including aromatic and aliphatic aldehydes, quinones, ketones, dicarbonyl compounds and 17-ketosteroids (PubMed:17574202). Catalyzes the NADP(+)-dependent oxidation of aromatic, alicyclic and aliphatic alcohols, and 17beta-hydroxysteroids (PubMed:17574202). To a lesser extent, can also catalyze the reduction of some aldoses and ketoses and the oxidation of some sugar alcohols (PubMed:17574202). In the stomach, lung and colon tissues, mediates the reduction of farnesal and geranylgeranial into farnesol and geranylgeraniol respectively (PubMed:21187079). By reducing 4-hydroxy-2-nonenal (HNE), produced during lipid peroxidation, into 1,4-dihydro-2-nonene (DHN), protects vascular endothelial cells from damage elicited by oxidized lipoproteins (PubMed:21187080).[UniProtKB/Swiss-Prot Function] |

## Product images:




Circular map for RR205531L4