

Product datasheet for **RG223056**

AKR1D1 (NM_005989) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | AKR1D1 (NM_005989) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | AKR1D1 |
| Synonyms: | 3o5bred; CBAS2; SRD5B1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG223056 representing NM_005989 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCTCAGTGCTGCAAGTCACCGCATACCTCTAAGTGATGGAACAGCATTCCCATCATCGGACTTG
GTACCTACTCAGAACCTAAATCGACCCCTAAGGGAGCCTGTGCAACATCGGTGAAGTTGCTATTGACAC
AGGGTACCGACATATTGATGGGGCTACATCTACCAAAATGAACACGAAGTTGGGGAGGCCATCAGGGAG
AAGATAGCAGAAGGAAAGGTGCGGAGGGAAGATATCTTCTACTGTGAAAGCTATGGGCTACAAATCATG
TCCCAGAGATGGTCCGCCAACCTGGAGAGGACACTCAGGGTCTCCAGCTAGATTATGTGGATCTTTA
CATCATTGAAGTACCCATGGCCTTTAAGCCAGGAGATGAAATATACCCTAGAGATGAGAATGGCAAATGG
TTATATCACAAGTCAAATCTGTGTGCCACTTGGGAGGCGATGGAAGCTTGCAAAGACGCTGGCTTGGTGA
AATCCCTGGGAGTGTCCAATTTAAACCGCAGGCAGCTGGAGCTCATCCTGAACAAGCCAGGACTCAAACA
CAAGCCAGTCAGCAACCAGGTTGAGTGCCATCCGTATTTACCCAGCCAAAACCTTTGAAATTTGCCAA
CAACATGACATTGTCATTACTGCATATAGCCCTTTGGGGACCAGTAGGAATCCAATCTGGGTGAATGTTT
CTTCTCCACCTTTGTTAAAGGATGCACTTCTAAACTCATTGGGAAAAGGTACAATAAGACAGCAGCTCA
AATTGTTTTGCGTTTCAACATCCAGCGAGGGTGGTTGTCATTCTAAAAGCTTTAATCTTGAAAGGATC
AAAGAAAATTTTCAGATCTTTGACTTTTCTCTACTGAAGAAGAAATGAAGGACATTGAAGCCTTGAATA
AAAATGTCGCTTTGTAGAATTGCTCATGTGGCGGATCATCTGAATACCCATTTTCATGATGAATAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223056 representing NM_005989
Red=Cloning site Green=Tags(s)

MDLSAASHRIPLSDGNSIPIIIGLTYSEPKSTPKGACATSVKVAIDTGYRHIDGAYIYQNEHEVGEAIRE
 KIAEGKVRREDIFYCGKLWATNHVPEMVRPTLERTLRVLQLDYVDLYIEVPMFAFKPGDEIYPRDENGKW
 LYHKSNLCATWEAMEACKDAGLVKSLGVSNFNRRQLELILNKPGPKHKPVSQVECHPYFTQPKLLKFCQ
 QHDIVITAYSPLGTSRNPFIWVNVSSPPLLKDALLNSLGKRYNKAAQIVLRFNIQRGVVIVPKSFNLERI
 KENFQIFDFSLTEEEMKDIEALNKNVRFVELLMWRDHPEYPFHDEY

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005989

ORF Size: 978 bp

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.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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_005989.4](#)

RefSeq Size: 2692 bp

RefSeq ORF: 981 bp

Locus ID: 6718

UniProt ID: [P51857](#)

Cytogenetics: 7q33

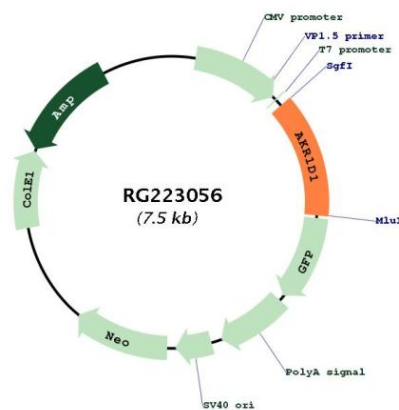
Domains: aldo_ket_red

Protein Families: Druggable Genome

Protein Pathways: Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways, Primary bile acid biosynthesis

Gene Summary: The enzyme encoded by this gene is responsible for the catalysis of the 5-beta-reduction of bile acid intermediates and steroid hormones carrying a delta(4)-3-one structure. Deficiency of this enzyme may contribute to hepatic dysfunction. Three transcript variants encoding different isoforms have been found for this gene. Other variants may be present, but their full-length natures have not been determined yet. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RG223056