

Product datasheet for **RG200302**

AKR1A1 (NM_006066) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: AKR1A1 (NM_006066) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: AKR1A1
Synonyms: ALDR1; ALR; ARM; DD3; HEL-S-6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG200302 representing NM_006066
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTTCCTGTGTTCTACTGCACACTGGGCAGAAGATGCCTCTGATTGGTCTGGGTACCTGGAAGA
GTGAGCCTGGTCAGGTAAGCAGCTGTTAAGTATGCCCTTAGCGTAGGCTACCGCCACATTGATTGTGC
TGCTATCTACGGCAATGAGCCTGAGATTGGGGAGGCCCTGAAGGAGGACGTGGGACCAGGCAAGGCGGTG
CCTCGGGAGGAGCTGTTTGTGACATCCAAGCTGTGGAACACCAAGCACCACCCGAGGATGTGGAGCCTG
CCCTCCGAAGACTCTGGCTGACCTCCAGCTGGAGTATCTGGACCTGTACCTGATGCACTGGCCTTATGC
CTTTGAGCGGGGAGACAACCCCTTCCCCAAGAATGCTGATGGGACTATATGCTACGACTCCACCCACTAC
AAGGAGACTTGAAGGCTCTGGAGGCACTGGTGGCTAAGGGGCTGGTGCAGGCGCTGGGCCCTGTCCAAT
TCAACAGTCGGCAGATTGATGACATACTCAGTGTGGCCTCCGTGCGTCCAGCTGTCTTGCAGGTGGAATG
CCACCCACTTGGCTCAAAATGAGCTAATTGCCCACTGCCAAGCACGTGGCCTGGAGGTAAGTCTTAT
AGCCCTTTGGGCTCCTCTGATCGTGCATGGCGTATCCTGATGAGCCTGTCTGCTGGAGGAACAGTAG
TCCTGGCATTGGCTGAAAAGTATGGCCGATCTCCAGCTCAGATCTTGCTCAGGTGGCAGGTCCAGCGGAA
AGTGATCTGCATCCCCAAAAGTATCACTCCTTCTCGAATCCTTCAGAACATCAAGGTGTTTGACTTCACC
TTTAGCCAGAAGAGATGAAGCAGCTAAATGCCCTGAACAAAAATTGGAGATATATTGTGCCTATGCTTA
CGGTGGATGGGAAGAGAGTCCCAAGGGATGCAGGGCATCCTCTGTACCCCTTAAATGACCCGTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200302 representing NM_006066
 Red=Cloning site Green=Tags(s)

MAASCVLLHTGQKMPLIGLGTWKSEPGQVKAADVYALSVGYRHHIDCAAIYGNPEIGEALKEDVGPVKAV
 PREELFVTSKLVNTKHHPEDEVPAALRKTADLQLEYLDLMLHWPYAFERGDNPFKADGTICYDSTHY
 KETWKALEALVAKGLVQALGLSNFNSRQIDDILSVASVRPAVLQVECHPYLAQNELIAHCQARGLEVTA
 Y SPLGSSDRAWRPDEPVLLEEVVLAALAEKYGRSPAQILLRWVQVRKVICIPKSIITPSRILQNIKVFDF
 T FSPEEMQLNALNKNWRYIVPMLTVDGKRVPRDAGHPLYPFNDPY

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006066

ORF Size: 975 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_006066.4](#)

RefSeq Size: 1556 bp

RefSeq ORF: 978 bp

Locus ID: 10327

UniProt ID: [P14550](#)

Cytogenetics: 1p34.1

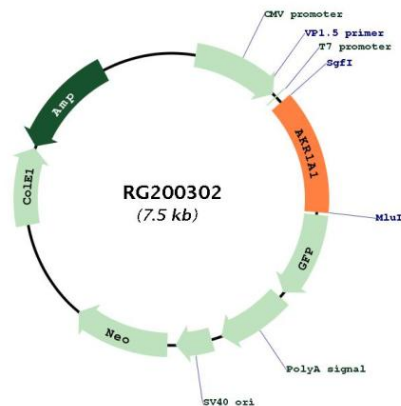
Domains: aldo_ket_red

Protein Families: Druggable Genome

Protein Pathways: Glycerolipid metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways

Gene Summary: This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member, also known as aldehyde reductase, is involved in the reduction of biogenic and xenobiotic aldehydes and is present in virtually every tissue. Multiple alternatively spliced transcript variants of this gene exist, all encoding the same protein. [provided by RefSeq, Jan 2011]

Product images:



Circular map for RG200302