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# Product datasheet for RC232483

## AKR1A1 (NM_001202414) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | AKR1A1 (NM_001202414) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | AKR1A1 |
| **Synonyms:** | ALDR1; ALR; ARM; DD3; HEL-S-6 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC232483 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

RCATGGCGGCTTCCTGTGTTCTACTGCACACTGGGCAGAAGATGCCTCTGATTGGTCTGGGTACCTGGAA
GAGTGAGCCTGGTCAGGTAAAAGCAGCTGTTAAGTATGCCCTTAGCGTAGGCTACCGCCACATTGATTGT
GCTGCTATCTACGGCAATGAGCCTGAGATTGGGGAGGCCCTGAAGGAGGACGTGGGACCAGGCAAGGCGG
TGCCTCGGGAGGAGCTGTTTGTGACATCCAAGCTGTGGAACACCAAGCACCACCCCGAGGATGTGGAGCC
TGCCCTCCGGAAGACTCTGGCTGACCTCCAGCTGGAGTATCTGGACCTGTACCTGATGCACTGGCCTTAT
GCCTTTGAGCGGGGAGACAACCCCTTCCCCAAGAATGCTGATGGGACTATATGCTACGACTCCACCCACT
ACAAGGAGACTTGGAAGGCTCTGGAGGCACTGGTGGCTAAGGGGCTGGTGCAGGCGCTGGGCCTGTCCAA
CTTCAACAGTCGGCAGATTGATGACATACTCAGTGTGGCCTCCGTGCGTCCAGCTGTCTTGCAGGTGGAG
TGCCACCCATACTTGGCTCAAAATGAGCTAATTGCCCACTGCCAAGCACGTGGCCTGGAGGTAACTGCTT
ATAGCCCTTTGGGCTCCTCTGATCGTGCATGGCGTGATCCTGATGAGCCTGTCCTGCTGGAGGAACCAGT
AGTCCTGGCATTGGCTGAAAAGTATGGCCGATCTCCAGCTCAGATCTTGCTCAGGTGGCAGGTCCAGCGG
AAAGTGATCTGCATCCCCAAAAGTATCACTCCTTCTCGAATCCTTCAGAACATCAAGGTGTTTGACTTCA
CCTTTAGCCCAGAAGAGATGAAGCAGCTAAATGCCCTGAACAAAAATTGGAGATATATTGTGCCTATGCT
TACGGTGGATGGGAAGAGAGTCCCAAGGGATGCAGGGCATCCTCTGTACCCCTTTAATGACCCGTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:**

>RC232483 protein sequence
Red=Cloning site Green=Tags(s)

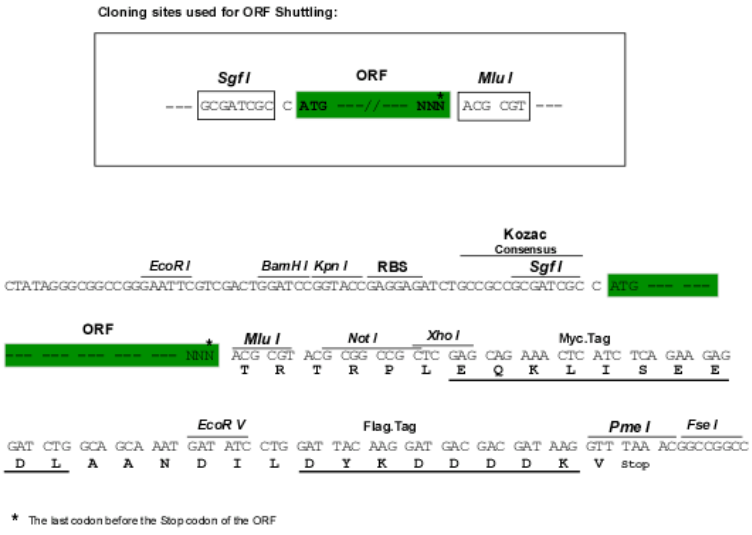
XWRLPVFYCTLGRRCL*LVWVPGRVSLVR*KQLLSMPLA*ATATLIVLLSTAMSLRLGRP*RRTWDQARR
CLGRSCL*HPSCGTPSTTPRMWSLPSGRLWLTSSWSIWTCT*CTGLMPLSGETTPSPRMLMGLYATTPPT
TRRLGRLWRHWWLRGWCRRWACPTSTVGRLMTYSVWPPCVQLSCRWSATHTWLKMS*LPTAKHVAWR*LL
IALWAPLIVHGVILMSLSCWRNQ*SWHWLKSMADLQLRSCSGGRSSGK*SASPKVSLLLESFRTSRCLTS
PLAQKR*SS*MP*TKIGDILCLCLRWMGRESQGMQGILCTPLMTR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk6414_h09.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_001202414

**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_001202414.1, NP_001189343.1

**RefSeq Size:** 1508 bp

**RefSeq ORF:** 978 bp

**Locus ID:** 10327

**UniProt ID:** P14550

**Cytogenetics:** 1p34.1

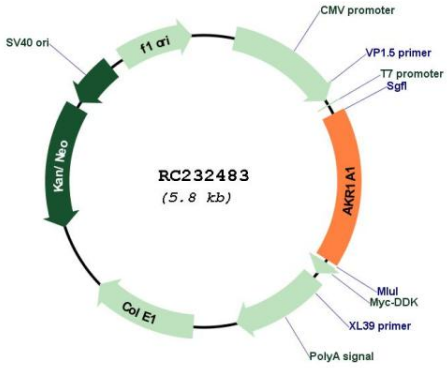
**Protein Families:** Druggable Genome

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

**MW:** 36.6 kDa

**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 RC232483