

Product datasheet for **RG232483**

AKR1A1 (NM_001202414) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1A1 (NM_001202414) 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:	>RG232483 representing NM_001202414 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTTCCTGTGTTCTACTGCACACTGGGCAGAAGATGCCTCTGATTGGTCTGGGTACCTGGAAGA
GTGAGCCTGGTCAGGTAAGCAGCTGTTAAGTATGCCCTTAGCGTAGGCTACCGCCACATTGATTGTGC
TGCTATCTACGGCAATGAGCCTGAGATTGGGGAGGCCCTGAAGGAGGACGTGGGACCAGGCAAGGCGGTG
CCTCGGGAGGAGCTGTTTGTGACATCCAAGCTGTGGAACACCAAGCACCACCCGAGGATGTGGAGCCTG
CCCTCCGAAGACTCTGGCTGACCTCCAGCTGGAGTATCTGGACCTGTACCTGATGCACTGGCCTTATGC
CTTTGAGCGGGGAGACAACCCCTTCCCAAGAATGCTGATGGGACTATATGCTACGACTCCACCCACTAC
AAGGAGACTTGAAGGCTCTGGAGGCACTGGTGGCTAAGGGGCTGGTGCAGGCGCTGGGCCCTGTCCAAT
TCAACAGTCGGCAGATTGATGACATACTCAGTGTGGCCTCCGTGCGTCCAGCTGTCTTGCAGGTGGAATG
CCACCCATACTTGGCTCAAAATGAGCTAATTGCCCACTGCCAAGCACGTGGCCTGGAGGTAAGTCTTAT
AGCCCTTTGGGCTCCTCTGATCGTGCATGGCGTATCCTGATGAGCCTGTCTGCTGGAGGAACAGTAG
TCCTGGCATTGGCTGAAAAGTATGGCCGATCTCCAGCTCAGATCTTGCTCAGGTGGCAGGTCCAGCGGAA
AGTGATCTGCATCCCCAAAAGTATCACTCCTTCTCGAATCCTTCAGAACATCAAGGTGTTTGACTTCACC
TTTAGCCAGAAGAGATGAAGCAGCTAAATGCCCTGAACAAAAATTGGAGATATATTGTGCCTATGCTTA
CGGTGGATGGGAAGAGAGTCCCAAGGGATGCAGGGCATCCTCTGTACCCCTTAAATGACCCGTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232483 representing NM_001202414
 Red=Cloning site Green=Tags(s)

MAASCVLLHTGQKMPILIGLGTWKSEPGQVKAQVYALSVGYRHHIDCAAIYGNPEIGEALKEDVGPVKAV
 PREELFVTSKLVNTKHHPEDEVPEALRKTLDLQLEYLDLYLMHWPYAFERGDNPFKPNADGTICYDSTHY
 KETWKALEALVAKGLVQALGLSNFNSRQIDDILSVASVRPAVLQVECHPYLAQNELIAHCQARGLEVTA
 Y SPLGSSDRAWRPDEPVLLEEVVLAALAEKYGRSPAQIILLRWQVQRKVICIPKSIITPSRILQNIKVFDF
 T FSPEEMQLNALNKNWRYIVPMLTVDGKRVPRDAGHPLYPFNDPY

TRTRPLE - GFP Tag - V

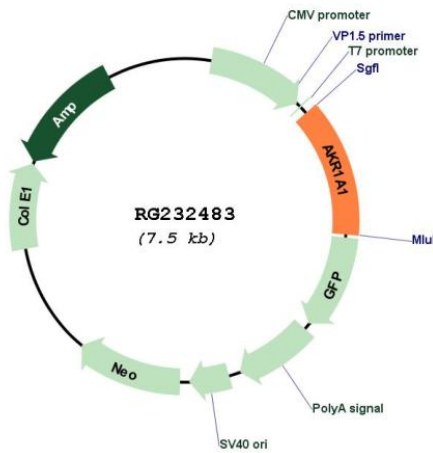
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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:	<ol style="list-style-type: none">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_001202414.2
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
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]