

Product datasheet for **RG200504**

AKR1B1 (NM_001628) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: AKR1B1 (NM_001628) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: AKR1B1
Synonyms: ADR; ALDR1; ALR2; AR
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG200504 representing NM_001628
 Red=Cloning site Blue=ORF Green=Tags(s)

GACGTTGTATACGACTCCTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GGCGGCC**

ATGGCAAGCCGTCTCCTGCTCAACAACGGCGCCAAGATGCCCATCTGGGGTTGGGTACCTGGAAGTCCC
 CTCCAGGGCAGGTGACTGAGGCCGTGAAGGTGGCCATTGACGTCGGGTACCGCCACATCGACTGTGCCCA
 TGTGTACCAGAAATGAGAATGAGGTGGGGTGGCCATTGAGGAGAAGCTCAGGGAGCAGGTGGTGAAGCGT
 GAGGAGCTTTCATCGTCAGCAAGCTGTGGTGCACGTACCATGAGAAGGGCCTGGTAAAAGGAGCCTGCC
 AGAAGACTCAGCGACCTGAAGCTGGACTACCTGGACCTCTACCTTATCACTGGCCGACTGGCTTTAA
 GCCTGGGAAGGAATTTTCCATTGGATGAGTCGGCAATGTGGTTCACAGTGACACCAACATTCTGGAC
 ACGTGGGCGGCCATGGAAGAGCTGGTGGATGAAGGGCTGGTAAAAGCTATTGGCATCTCCAACCTCAACC
 ATCTCCAGGTGGAGATGATCTTAAACAAACCTGGCTTGAAGTATAAGCCTGCAGTTAACCAGATTGAGTG
 CCACCCATATCTCACTCAGGAGAAGTTAATCCAGTACTGCCAGTCAAAGGCATCGTGGTGACCGCTAC
 AGCCCCCTCGGCTCTCCTGACAGGCCCTGGGCCAAGCCGAGGACCCTTCTCTCTGGAGGATCCAGGA
 TCAAGGCGATCGCAGCCAAGCACAATAAACTACAGCCCAGGTCCTGATCCGGTTCCTATGCAGAGGAA
 CTTGGTGGTGTATCCCAAGTCTGTGACACCAGAACGCATTGCTGAGAACTTAAAGTCTTTGACTTTGAA
 CTGAGCAGCCAGGATATGACCACCTTACTCAGCTACAACAGGAAGTGGAGGGTCTGTGCCTTGTGAGCT
 GTACCTCCACAAGGATTACCCCTTCCATGAAGAGTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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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:	<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_001628.4
RefSeq Size:	1416 bp
RefSeq ORF:	951 bp
Locus ID:	231
UniProt ID:	P15121
Cytogenetics:	7q33
Domains:	aldo_ket_red
Protein Families:	Druggable Genome
Protein Pathways:	Fructose and mannose metabolism, Galactose metabolism, Glycerolipid metabolism, Metabolic pathways, Pentose and glucuronate interconversions, Pyruvate metabolism
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 catalyzes the reduction of a number of aldehydes, including the aldehyde form of glucose, and is thereby implicated in the development of diabetic complications by catalyzing the reduction of glucose to sorbitol. Multiple pseudogenes have been identified for this gene. The nomenclature system used by the HUGO Gene Nomenclature Committee to define human aldo-keto reductase family members is known to differ from that used by the Mouse Genome Informatics database. [provided by RefSeq, Feb 2009]