

## Product datasheet for **SC126774**

### AKR1B1 (NM\_001628) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1B1 (NM_001628) Human Untagged Clone
Tag:	Tag Free
Symbol:	AKR1B1
Synonyms:	ADR; ALDR1; ALR2; AR
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC126774 sequence for NM_001628 edited (data generated by NextGen Sequencing)

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ATGGCAAGCCGTCTCCTGCTCAACAACGGCGCCAAGATGCCCATCTGGGTTGGGTACC
TGGAAGTCCCCTCCAGGGCAGGTGACTGAGGCCGTGAAGGTGGCCATTGACGTCGGGTAC
CGCCACATCGACTGTGCCATGTGTACCAGAATGAGAATGAGGTGGGGTGGCCATTCAG
GAGAAGCTCAGGGAGCAGGTGGTGAAGCGTGAGGAGCTTTCATCGTCAGCAAGCTGTGG
TGCACGTACCATGAGAAGGCCTGGTGAAGGAGCCTGCCAGAAGACTCAGCGACCTG
AAGCTGGACTACCTGGACCTCTACCTTATCACTGGCCGACTGGCTTTAAGCCTGGGAAG
GAATTTTCCCATTTGGATGAGTCGGGCAATGTGGTTCCAGTGACACCAACATTCTGGAC
ACGTGGGCGGCCATGGAAGAGCTGGTGGATGAAGGGCTGGTGAAGCTATTGGCATCTCC
AACTTCAACCATCTCCAGGTGGAGATGATCTTAAACAAACCTGGCTTGAAGTATAAGCCT
GCAGTTAACCAGATTGAGTGCCACCCATATCTCACTCAGGAGAAGTTAATCCAGTACTGC
CAGTCCAAAGGCATCGTGGTGACCGCTACAGCCCCCTCGGCTCTCCTGACAGGCCCTGG
GCCAAGCCCGAGGACCCTTCTCTCTGGAGGATCCCAGGATCAAGGCGATCGCAGCCAAG
CACAATAAAACTACAGCCCAGGTCTGTATCCGGTTCATGCAGAGGAACTTGGTGGTG
ATCCCCAAGTCTGTGACACCAGAACGCATTGCTGAGAACCTTAAGGTCTTTGACTTTGAA
CTGAGCAGCCAGGATATGACCACCTTACTCAGCTACAACAGGAACTGGAGGTCTGTGCC
TTGTTGAGCTGTACCTCCACAAGGATTACCCCTTCCATGAAGAGTTTTGA

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Clone variation with respect to NM\_001628.2



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_001628 unedited            GAACACCATTACTATAGGCGGCCGCGCAATTCGCACGAGGCTCGTGCCGAATTCGGCAC            GAGGCACCGTACTGGGCGGGGTCTGGGGAGCGCAGCAGCCATGGCAAGCCGTCTCCTGC            TCAACAACGGCGCCAAGATGCCCATCTGGGGTTGGGTACCTGGAAGTCCCCTCCAGGGC            AGGTGACTGAGGCCGTGAAGGTGGCCATTGACGTGGGTACCGCCACATCGACTGTGCC            ATGTGTACCAGAATGAGAATGAGGTGGGGTGGCCATTCAGGAGAAGCTCAGGGAGCAGG            TGGTGAAGCGTGAGGAGCTCTTCATCGTCAGCAAGCTGTGGTGCACGTACCATGAGAAG            GCCTGGTGAAGGAGCCTGCCAGAAGACACTCAGCGACCTGAAGCTGGACTACCTGGACC            TCTACCTTATTACTGGCCGACTGGCTTTAAGCCTGGGAAGGAATTTTTCCCATGGATG            AGTCGGGCAATGTGGTCCAGTGACACCAACATTCTGGACACGTGGGCGGCCATGGAAG            AGCTGGTGGATGAAGGGCTGGTGAAGCTATTGGCATCTCAACTCAACCATCTCCAGG            TGGAGATGATCTAAACAAACCTGGCTTGAAGTAAAGCTGCAGTTAACAGATTGAGT            GCCACCCATATCTCACTCAGGAGAAGTTAATCCAGTACTGCCAGTCCAAAGGCATCGTGG            TGACCGCTACAGCCCCCTCGGCTTTCTGACAGGCCCTGNGCCAAGCCCGAGACCCTT            CTCTTCTGGAGATCCCAGNATCAAGGCGATCGCAGCCAAGCACATAAACTACANGCCC            AGTCCTTGATCCGGNTCCCATGCAGNAGAACTTGTGGNTGACCA</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_001628 unedited            ACCGCGGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTACACAAAAGCACTTTT            TATTTGAGGCAAAGAGAAGTCTTGCTGAAAGGATTCCAGTTCCAAGCAGTCAAACCTCAA            CCGTTAGTGGCACTATTTGACCTGGTAGATTTTGCTTCTTTTGGTCAGAAAAGGGTAT            TCAGTTGTACTTTCCAGCAGGGTAGAAAGAAGGGCAAAGCAAAGTGAAGAGACTTC            TACTCTACTGACAGGGCTTTGAGATCCAACATCAAGCTAGACAGCCCTCGCTGGCCAC            TCTACAGTTGTGTCCCACTGTGAGTGACACAGGCCATACTACATTTGCAAGGAAAAA            AATGAGGCAAGAAACACAGGTATAGGTCACTTGGGGACGAGCAGGCAACCACAGTTCAA            AACTCTTCATGGAAGGGTAATCCTTGTGGGAGGTACAGCTCAACAAGGCACAGACCCTC            CAGTTCCTGTTGTAGCTGAGTAAGGTGGTCATATCCTGGCTGCTCAGTTCAAAGTCAAAG            ACCTTAAAGTTCTCAGCAATGCGTTCTGGTGTACAGACTTGNNGATCACCACCAAGTTC            CTCTGCATGGGGAACCGGATCAGGACCTGGGCTGTANGTTTATTGTGCTTGGCTGCGATC            GCCTTGATCCTGGGATCCTCCAGGAGAAGAAGTCTCGGGCTTGGCCANGGCCTGTCAA            GAAACCGAGGGGGCTGTAAGCGGCACCACGATGCTTTGGACTGGCAGACTGGATAACTCT            CCTGATGAGAATGGGGGACTAATCTGGTACTGCAGTTATACTTAACCCAGTTTGTAG            ATCTCTCCCTGAAAGGTGAATTGGAATCCCATCCTTTCCAC</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_001628
<b>Insert Size:</b>	1530 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001628.2</a> , <a href="#">NP_001619.1</a>
<b>RefSeq Size:</b>	1416 bp
<b>RefSeq ORF:</b>	951 bp
<b>Locus ID:</b>	231
<b>UniProt ID:</b>	<a href="#">P15121</a>
<b>Cytogenetics:</b>	7q33
<b>Domains:</b>	aldo_ket_red
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Fructose and mannose metabolism, Galactose metabolism, Glycerolipid metabolism, Metabolic pathways, Pentose and glucuronate interconversions, Pyruvate metabolism
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) encodes isoform 1.</p>