

Product datasheet for **SC325506**

AKR1C2 (NM_001135241) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1C2 (NM_001135241) Human Untagged Clone
Tag:	Tag Free
Symbol:	AKR1C2
Synonyms:	AKR1C-pseudo; BABP; DD; DD-2; DD/BABP; DD2; DDH2; HAKRD; HBAB; MCDR2; SRXY8; TDD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001135241, the custom clone sequence may differ by one or more nucleotides

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ATGGATTCGAAATACCAGTGTGTGAAGCTGAATGATGGTCACTTCATGCCTGTCCTGGGATTTGGCACCT
ATGCGCCTGCAGAGGTTCTAAAAGTAAAGCTCTAGAGGCCGTCAAATTGGCAATAGAAGCCGGTTCCA
CCATATTGATTCTGCACATGTTTACAATAATGAGGAGCAGTTGGACTGGCCATCCGAAGCAAGATTGCA
GATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCAAAGCTTTGGAGCAATCCCATCGACCAGAGT
TGGTCCGACCAGCCTTGGAAAGGTCCTGAAAAATCTTCAATTGGACTATGTTGACCTCTATCTTATTCA
TTTTCCAGTGTCTGTAAGGAGGACATAGGGATTTAACATGGAAGAAGAGCCCTAACATAACTCCTAA
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Restriction Sites:	Please inquire
ACCN:	NM_001135241



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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001135241.1](#), [NP_001128713.1](#)

RefSeq Size: 945 bp

RefSeq ORF: 420 bp

Locus ID: 1646

UniProt ID: [P52895](#)

Cytogenetics: 10p15.1

Protein Families: Druggable Genome

Protein Pathways: Metabolism of xenobiotics by cytochrome P450

Gene Summary:

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols using NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme binds bile acid with high affinity, and shows minimal 3-alpha-hydroxysteroid dehydrogenase activity. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]

Transcript Variant: This variant (3) differs in the 5' UTR, lacks multiple 3' coding exons, and includes a different terminal exon compared to variant 1. The encoded protein (isoform 2) is shorter and has a distinct C-terminus compared to isoform 1.