

Product datasheet for **RC204731**

AKR1C4 (NM_001818) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1C4 (NM_001818) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AKR1C4
Synonyms:	3-alpha-HSD; C11; CDR; CHDR; DD-4; DD4; HAKRA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204731 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGATCCCAAATATCAGCGTGTAGAGCTAAATGATGGTCACTTCATGCCCGTATTGGGATTTGGCACCT
ATGCACCTCCAGAGGTTCCGAGGAACAGAGCTGTAGAGGTCACCAAATTAGCAATAGAAGCTGGCTTCCG
CCATATTGATTCTGCTTATTTATACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCA
GATGGCAGTGTGAAGAGAGAAGACATATCTACACTTCAAAGCTTTGGTGCATTTCTTTCAACCACAGA
TGGTCCAACCAGCCTTGAAAGCTCACTGAAAAAATTCAACTGGACTATGTTGACCTCTATCTTCTTCA
TTTCCCAATGGCTCTCAAGCCAGGTGAGACGCCACTACCAAAGATGAAAATGAAAAGTAAATATTCGAC
ACAGTGGATCTCTCTGCCACATGGGAGGTCATGGAGAAGTGAAGGATGCAGGATTGGCCAAGTCCATCG
GGGTGTCAAACCTCAACTACAGGCAGCTGGAGATGATCCTCAACAAGCCAGGACTCAAGTACAAGCCTGT
CTGCAACCAGGTAGAATGTCATCCTTACCTCAACCAGAGCAAACCTGCTGGATTTCTGCAAGTCAAAGAC
ATTGTTCTGGTTGCCACAGTGTCTGGGAACCAACGACATAAACTATGGGTGGACCAAACTCCCCAG
TTCTTTTGGAGGCCAGTTCTTTGTGCCTTAGCAAAGAAACACAACGAACCCAGCCCTGATTGCCCT
GCGCTACCAGCTGCAGCGTGGGTTGTGGTCTGGCCAAGAGCTACAATGAGCAGCGGATCAGAGAGAAC
ATCCAGTTTTTGAATTCAGTTGACATCAGAGGATATGAAAGTTCTAGATGGTCTAAACAGAAAATTATC
GATATGTTGTCTGGATTTTCTTATGGACCATCTGATTATCCATTTTCAGATGAATAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204731 protein sequence
Red=Cloning site Green=Tags(s)

MDPKYQRVELNDGHFMPVLGFGTYAPPEVPRNRAVEVTKLAIEAGFRHIDSAYLYNNEEQVGLAIRSKIA
 DGSVKREDIFYTSKLWCTFFQPQMVQPALESSLKKLQLDYVDLYLLHFPALKPGETPLPKDENGKVI
 TVDLSATWEVMEKCKDAGLAKSIGVSNFNRYRQLEMILNKPLKYPVCNQVECHPYLNQSKLLDFCKSKD
 IVLVAHSALGTQRHKLWVDPNSPVLLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAQSYNEQRI
 IRENIQVFEFQLTSEDMKVL DGLNRNRYVVMDFLMDHPDYPF SDEY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6438_c07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001818

ORF Size: 969 bp

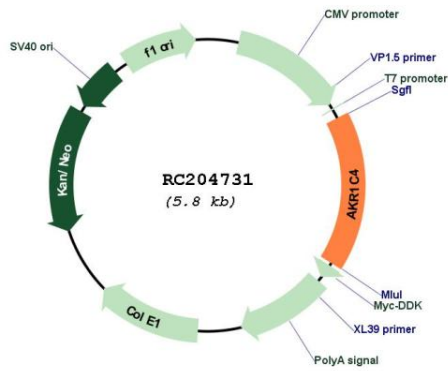
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

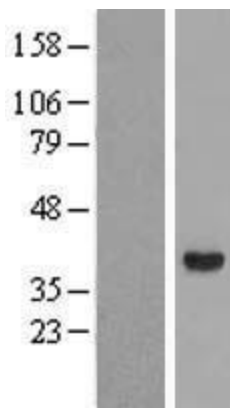
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_001818.5
RefSeq Size:	1192 bp
RefSeq ORF:	972 bp
Locus ID:	1109
UniProt ID:	P17516
Cytogenetics:	10p15.1
Protein Families:	Druggable Genome
Protein Pathways:	Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Primary bile acid biosynthesis
MW:	37.2 kDa
Gene Summary:	<p>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 by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the bioreduction of chlordecone, a toxic organochlorine pesticide, to chlordecone alcohol in liver. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. [provided by RefSeq, Jul 2008]</p>

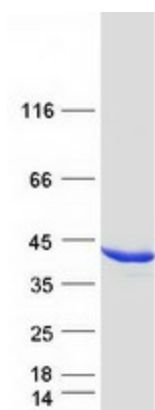
Product images:



Circular map for RC204731



Western blot validation of overexpression lysate (Cat# [LY419725]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204731 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AKR1C4 protein (Cat# [TP304731]). The protein was produced from HEK293T cells transfected with AKR1C4 cDNA clone (Cat# RC204731) using MegaTran 2.0 (Cat# [TT210002]).