

Product datasheet for **RG204731**

AKR1C4 (NM_001818) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1C4 (NM_001818) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AKR1C4
Synonyms:	3-alpha-HSD; C11; CDR; CHDR; DD-4; DD4; HAKRA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204731 representing NM_001818 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCCCAAATATCAGCGTGTAGAGCTAAATGATGGTCACTTCATGCCCGTATTGGGATTTGGCACCT
ATGCACCTCCAGAGGTTCCGAGGAACAGAGCTGTAGAGGTCACCAAATTAGCAATAGAAGCTGGCTTCCG
CCATATTGATTCTGCTTATTTATACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCA
GATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCAAAGCTTTGGTGCATTTCTTTCAACCACAGA
TGGTCCAACCAGCCTTGAAAGCTCACTGAAAAAACTTCAACTGGACTATGTTGACCTCTATCTTCTTCA
TTTCCCAATGGCTCTCAAGCCAGGTGAGACGCCACTACCAAAAAGATGAAAATGAAAAAGTAAATTCGCAC
ACAGTGGATCTCTCTGCCACATGGGAGGTCATGGAGAAGTGAAGGATGCAGGATTGGCCAAAGTCCATCG
GGGTGTCAAACCTTCAACTACAGGCAGCTGGAGATGATCCTCAACAAGCCAGGACTCAAGTACAAGCCTGT
CTGCAACCAGGTAGAATGTCATCCTTACCTCAACCAGAGCAAACCTGCTGGATTTCTGCAAGTCAAAGAC
ATTGTTCTGGTTGCCACAGTGTCTGGGAACCAACGACATAAACTATGGGTGGACCAAACTCCCCAG
TTCTTTTGGAGGACCCAGTTCTTTGTGCCTTAGCAAAGAAACACAACGAACCCAGCCCTGATTGCCCT
GCGCTACCAGCTGCAGCGTGGGTTGTGGTCTGGCCAAGAGCTACAATGAGCAGCGGATCAGAGAGAAC
ATCCAGGTTTTGAATTCCAGTTGACATCAGAGGATATGAAAGTTCTAGATGGTCTAAACAGAAAATTATC
GATATGTTGTCTGGATTTTCTTATGGACCATCTGATTATCCATTTTCAGATGAATAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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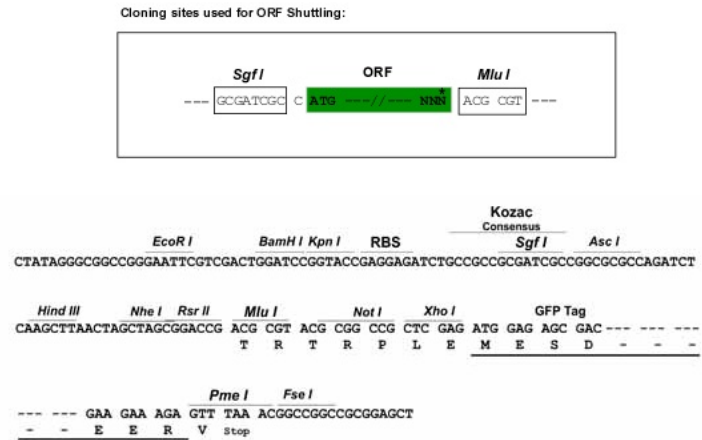
Protein Sequence: >RG204731 representing NM_001818
 Red=Cloning site Green=Tags(s)

MDPKYQRVELNDGHFMPVLGFGTYAPPEVPRNRAVEVTKLAIEAGFRHIDSAYLYNNEEQVGLAIRSKIA
 DGSVKREDIFYTSLKWCTFFQPQMVQPALESSLKKLQLDYVDLYLLHFPALKPGETPLPKDENGKVI
 TVDLSATWEVMEKCKDAGLAKSIGVSNFNRYRQLEMILNKPLKYKPVCNQVECHPYLNQSKLLDFCKSKD
 IVLVAHSALGTQRHKLWDPNSPVLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIREN
 IQVFEFQLTSEDMKVL DGLNRNRYVVMDFLMDHPDYPF SDEY

TRTRPLE - GFP Tag - V

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:

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_001818.2](#), [NP_001809.2](#)

RefSeq Size: 1194 bp

RefSeq ORF: 972 bp

Locus ID: 1109

UniProt ID: [P17516](#)

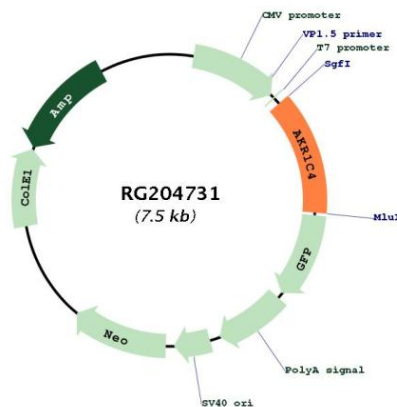
Cytogenetics: 10p15.1

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

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 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]

Product images:



Circular map for RG204731