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Product datasheet for RC225116

AKR1C2 (NM_001135241) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1C2 (NM_001135241) Human Tagged ORF Clone
Tag:	Myc-DDK
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)

ORF Nucleotide Sequence:

>RC225116 representing NM_001135241
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATTCGAAATACCAGTGTGTGAAGCTGAATGATGGTCACTTCATGCCTGTCCTGGGATTTGGCACCT
ATGCGCCTGCAGAGGTTCCTAAAAGTAAAGCTCTAGAGGCCGTCAAATTGGCAATAGAAGCCGGGTTCCA
CCATATTGATTCTGCACATGTTTACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCA
GATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCAAAGCTTTGGAGCAATTCCCATCGACCAGAGT
TGGTCCGACCAGCCTTGGAAAGGTCACTGAAAAATCTTCAATTGGACTATGTTGACCTCTATCTTATTCA
TTTTCCAGTGTCTGTAAAGGAGGACATAGGGATTTTAACATGGAAGAAGAGCCCTAAACATAACTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225116 representing NM_001135241
Red=Cloning site Green=Tags(s)

MDSKYQCVKLNDGHFMPVLGFGTYAPAEVPKSKALEAVKLAIEAGFHHIDSAHVYNNEEQVGLAIRSKIA
DGSVKREDIFYTSKLWSNSHRPELVRPALERSLKNLQLDYVDLYLIHFPVSVKEDIGILTWKKSPKHNS

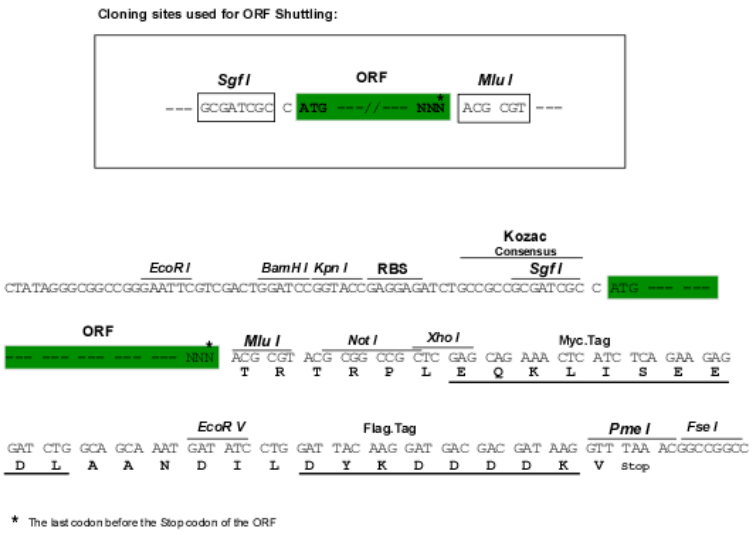
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1445_a10.zip

Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



ACCN: NM_001135241

ORF Size: 417 bp

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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

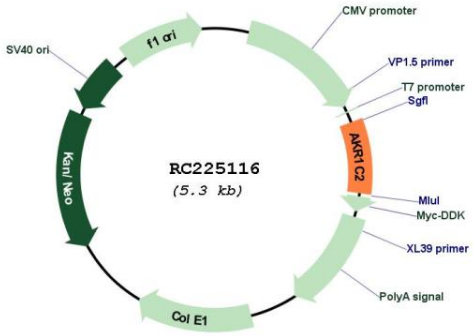
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

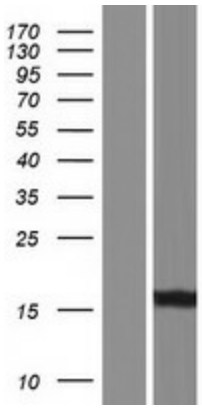
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_001135241.2
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
MW:	15.6 kDa
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]

Product images:



Circular map for RC225116



Western blot validation of overexpression lysate (Cat# [LY427603]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225116 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).