

Product datasheet for RC203177

AKR1B10 (NM_020299) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR1B10 (NM_020299) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AKR1B10
Synonyms:	AKR1B11; AKR1B12; ALDRLn; ARL-1; ARL1; HIS; HSI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203177 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCCACGTTTGTGGAGCTCAGTACCAAAGCCAAGATGCCATTGTGGGCCTGGGCACTTGAAGTCTC
CTCTTGGCAAAGTGAAAGAAGCAGTGAAGGTGGCCATTGATGCAGGATATCGGCACATTGACTGTGCCTA
TGTCTATCAGAAATGAACATGAAGTGGGGGAAGCCATCCAAGAGAAGATCCAAGAGAAGGCTGTGAAGCGG
GAGGACCTGTTTCATCGTCAGCAAGTTGTGGCCACTTTCTTTGAGAGACCCTTGTGAGGAAAGCCTTTG
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GCCTGGGAGGCCATGGAGGAGCTGGTGGATGAGGGCTGGTAAAAGCCCTTGGGGTCTCCAAATTCAGCC
ACTTCCAGATCGAGAAGCTCTTGAACAAACCTGGACTGAAATATAAACCAGTGACTAACCAGGTTGAGTG
TCACCCATACCTCACACAGGAGAACTGATCCAGTACTGCCACTCCAAGGGCATCACCGTTACGGCCTAC
AGCCCCCTGGGCTCTCCGGATAGACCTTGGGCCAAGCCAGAAGACCCTTCCCTGCTGGAGGATCCCAAGA
TTAAGGAGATTGCTGCAAAGCACAAAAAACCCGACGCCAGGTTCTGATCCGTTTCCATATCCAGAGGAA
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TTGAGTGATGAGGAGATGGCAACCACTCAGTTCAACAGAACTGGAGGGCTGTAACGTGTTGCAAT
CCTCTCATTGGAAGACTATCCCTTCGATGCAGAATAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203177 protein sequence
 Red=Cloning site Green=Tags(s)

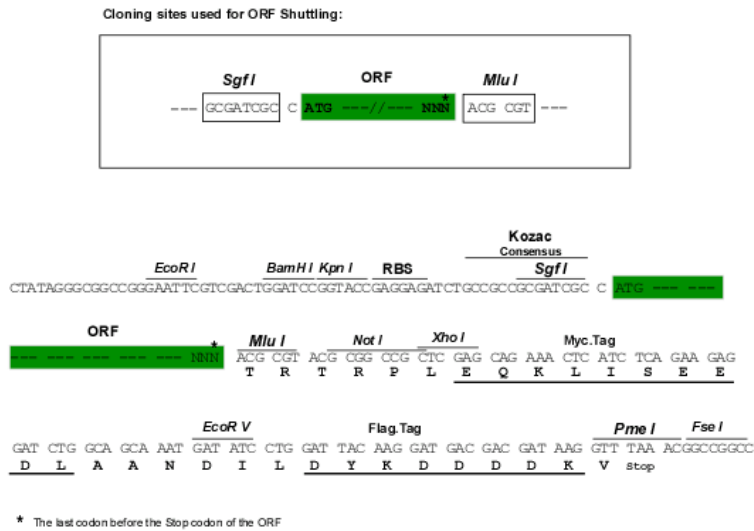
MATFVELSTKAKMPIVGLGTWKSPLGKVKAEVKVAIDAGYRHIDCAYVYQNEHEVGEAIQEKIQEKAVKR
 EDLFIVSKLWPTFFERPLVRKA FEKTLKDLKLSYLDVYL IHWPQGFKSGDDLFPKDDKGN AIGGKATFLD
 AWEAMEELVDEGLVKALGVSNFSHFQIEKLLNKPGLKYPV TNQVECHPYLTQEKLIQYCHSKGITVTAY
 SPLGSPDRPWAKPEDPSLLEDPKIKEIAAKHKKTAAQV LIRFHIQRNVIVIPKSVTPARIVENIQVFDFK
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TRTRP LEQKLI SEEDLA ANDILDYK DDDDKV

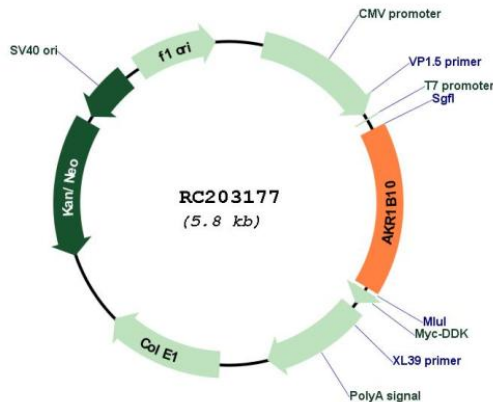
Chromatograms: https://cdn.origene.com/chromatograms/mk6194_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:

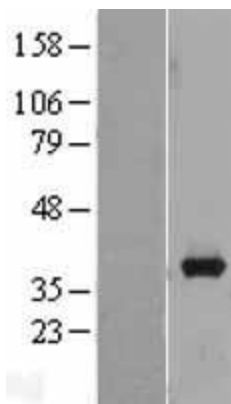


ACCN: NM_020299

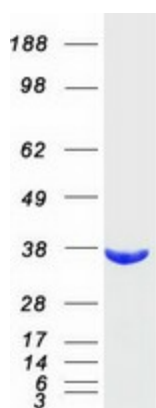
ORF Size:	948 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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.</p> <p>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</p>
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_020299.3 , NP_064695.2
RefSeq Size:	1610 bp
RefSeq ORF:	951 bp
Locus ID:	57016
UniProt ID:	O60218
Cytogenetics:	7q33
Domains:	aldo_ket_red
Protein Families:	Druggable Genome
Protein Pathways:	Butanoate metabolism, Fructose and mannose metabolism, Linoleic acid metabolism, Metabolic pathways
MW:	36 kDa

Gene Summary:

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member can efficiently reduce aliphatic and aromatic aldehydes, and it is less active on hexoses. It is highly expressed in adrenal gland, small intestine, and colon, and may play an important role in liver carcinogenesis. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY402772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203177 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AKR1B10 protein (Cat# [TP303177]). The protein was produced from HEK293T cells transfected with AKR1B10 cDNA clone (Cat# RC203177) using MegaTran 2.0 (Cat# [TT210002]).