

Product datasheet for MR204697

Akr1c21 (NM_029901) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Akr1c21 (NM_029901) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Akr1c21
Synonyms:	9430025F20Rik; AI315367
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204697 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAC**TC**CAAA**TG**TCATTGTGTCATATTGAATGATGGTAACTTCATTCCAGTGC**TGG**TTTTGGTACTG
CTCTTCTGTAGAGTGTCCCAAGAGTAAAGCTAAGGAGCTCACCAAAATAGCTATAGATGCTGGTTTCCA
TCACTTTGATTCTGCTTCTGTCTATAATACCGAAGATCGTGTAGGAGAGGCCATCAGAAGCAAGATTGCT
GATGGCACTGTAAGGAGAGAAGATATATTTACACCTCAAAGTTTGGTGTACTAGCCTTCGCCCAGAAC
TTGTGAGAGCTTCCTTGGTACGGTCACTGCAAAA**ACTTCAGTTCGATTATGTGGACCTGTATCTCATTCA**
TTACCCAATGGCCCTGAAACCAGGAGAAGAAAATTTCCAGTAGATGAACATGGAAAATTAATATTTGAC
AGAGTGGACCTCTGTGCCACCTGGGAGGCCATGGAGAAGTGAAGGATGCAGGACTAACCAAGTCCATTG
GGTGTCTAACTTAACTCTAGACAGTTGGAGATGATTCTGAATAAGCCTGGGCTCAAGTACAAGCCGGT
ATGCAACCAGGTAGAATGCCATCCTTATCTCAACCAAA**TGAACTTCTGGATTTCTG**CAAAATCAAAGAT
ATTGTATTGGTTGCCTATGGTGTCTAGGAACACAACGATATGGAGGATGGGTAGACCAGAATCCCCCTG
TTCTCTGGATGAACCAGTTCTTGGTCCATGGCAAAAAAATAAATCGAACTCCAGCCTTGATTGCCCT
TCGCTACCAGTTACAGCGTGGGATTGTGGTCTCAACACCAGTCTCAAAGAGGAGCGGATCAAAGAGAAC
ATGCAGTTTTTGAATTCAGCTGAGTTCAGAGGATATGAAAGTCTTGATGGCCTGAACAGAAAATATGC
GATACATACCTGCTGCCATTTTCAAGGGCCACCCTAATTGGCCATTTTGGATGAATAC

ACGCGTACGCGGCCGCTCGAGCAGAAA**ACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR204697 protein sequence
Red=Cloning site Green=Tags(s)

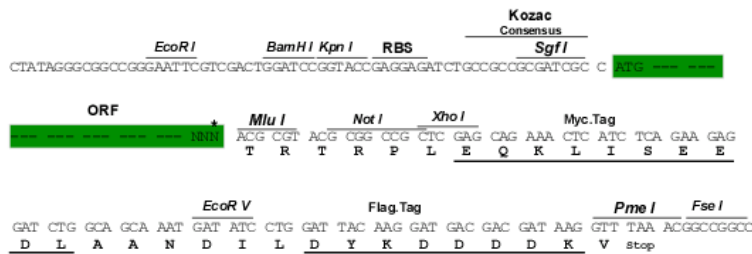
MNSKCHCVILNDGNFIPVLGFGTALPVECPKSKAKELTKIAIDAGFHHFDSASVYNTEDRVGEAIRSKIA
 DGTVRREDIFYTSKVWCTSLRPELVASLVRSLQKLQFDYVDLYLIHYPMALKPGEENFPVDEHGKLI
 RVDLCATWEAMEKCKDAGLTKSIGVSNFNSRQLEMILNKPLKYPVCNQVECHPYLNQMKLLDFCKSKD
 IVLVAYGVLGTQRYGGWVDQNSPVLLDEPVLGSMAKKYNRTPALIALRYQLQRGIVVLTSLKEERIKEN
 MQVFEFQLSSEDMKVL DGLNRNMRYPAAIFKGHNPWFLDEY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_029901

ORF Size: 972 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_029901.1](#), [NM_029901.2](#), [NP_084177.2](#)

RefSeq Size: 1222 bp

RefSeq ORF: 972 bp

Locus ID: 77337

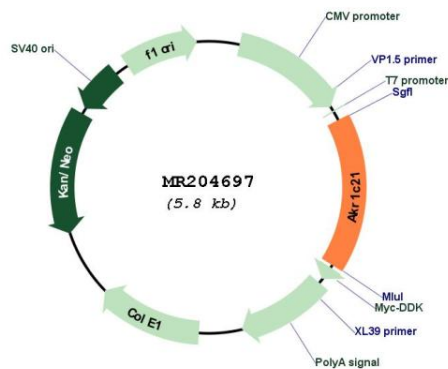
UniProt ID: [Q91WR5](#)

Cytogenetics: 13 A1

MW: 36.8 kDa

Gene Summary: NADP-dependent 17-alpha-hydroxysteroid dehydrogenase that converts 5-alpha-androstane-3,17-dione into androsterone. Has lower 3-alpha-hydroxysteroid dehydrogenase activity. Has broad substrate specificity and acts on various 17-alpha-hydroxysteroids, 17-ketosteroids, 3-alpha hydroxysteroids and 3-ketosteroids. Reduction of keto groups is strictly stereoselective. Reduction of 17-ketosteroids yields only 17-alpha-hydroxysteroids. Likewise, reduction of 3-ketosteroids yields only 3-alpha-hydroxysteroids.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR204697