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Product datasheet for MR206299

Kcnab1 (NM_010597) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnab1 (NM_010597) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kcnab1
Synonyms:	Akr8a8; Kvbeta1.1; mKv(beta)1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR206299 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAAGTCTCCATAGCCTGCACAGAGCACAATTTGAAGAGTCGAAATGGTGAGGACCGACTTCTGAGCA
AGCAGAGCTCCAACGCCCCCAATGTGGTGAACGCAGCCCGGGCCAAATTCCGCACTGTCGCTATCATCGC
TCGCAGCCTGGGGACCTTCACCCCTCAGCATCACATTTCTCTCAAAGAGTCCACCGCAAAGCAGACTGGC
ATGAAATATAGGAATCTTGGGAAATCAGGACTCAGAGTTTCATGCTTGGGTCTTGGAACATGGGTGACAT
TTGGAGGTCAAATCTCAGATGAGGTTGCTGAACGGCTGATGACAATTGCCTACGAAAGTGGAGTTAATCT
CTTCGACACAGCTGAGGTCTATGCTGCTGGGAAGGCTGAGGTGATTCTGGGAAGCATCATCAAGAAGAAA
GGCTGGAGGAGGTCCAGCTTGGTCATCACAACCAAACTCTACTGGGGTGGAAAAGCTGAGACAGAAAGGG
GACTGTCAAGAAAGCACATCATTGAAGGACTGAAAGGCTCCCTCCAGAGGCTGCAACTGGAATACGTGGA
TGTGGTCTTTGCAAATCGCCCAGACAGCAACACTCCCATGGAAGAAATCGTTCGAGCCATGACGCACGTG
ATCAACCAAGGCATGGCCATGTACTGGGGCACCTCGAGGTGGAGCGCGATGGAGATCATGGAAGCCTACT
CTGTCGCACGGCAGTTCAACATGATCCCGCCTGTCTGTGAGCAAGCTGAGTACCATCTTTTCCAGAGAGA
GAAGGTGGAGGTCCAGCTGCCGGAGCTCTACCATAAAATAGGAGTTGGTGCAATGACATGGTCTCCACTT
GCTTGTGGAATTATTTCAGGAAAATATGGAAATGGGGTGCCAGAAAGTTCTAGAGCTTCACTGAAGTGCT
ACCAGTGGTTGAAGGAAAGAATCGTAAGTGAAGAAGGGAGAAAACAGCAAAACAAGCTGAAAGACCTCTC
TCCAATCGCTGAGCGCCTGGGGTGCACGCTACCTCAGCTGGCTGTGGCGTGGTGCCTGAGAAATGAGGGT
GTGAGTTCTGTGCTCCTGGGATCATCCACTCCGGAACAACTCATTGAAAACCTTGGTGCCATTCAGGTCC
TCCCTAAGATGACATCTCACGTGGTGAACGAGATTGATAACATACTGCGCAACAAGCCCTACAGCAAAAA
GGACTATAGATCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

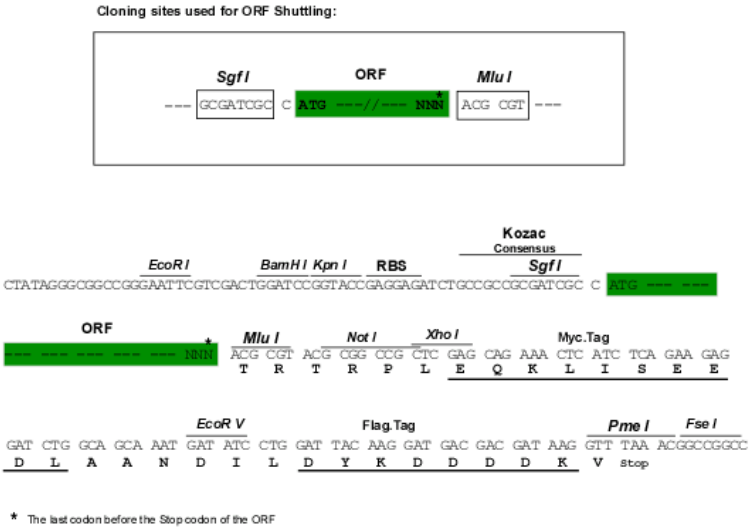
>MR206299 protein sequence
Red=Cloning site Green=Tags(s)

MQVSIACTEHNLKSRNGEDRLLSKQSSNAPNVVNAARAKFRTVAIIARSLGTFTPQHHISLKESTAKQTG
MKYRNLGKSGLRVSCLGLGTWVTFGGQISDEVAERLMTIAYESGVNLFDTAEVYAAGKAEVILGSIIKKK
GWRRSSLVITTKLYWGGKAETERGLSRKHIIEGLKGSLQRLQLEYVDVVFANRPDSNTPMEEIVRAMTHV
INQGMAMYWGTSRWSAMEIMEAYSVARQFNMIPPVCEQAEYHLFQREKVEVQLPELYHKIGVGAMTWSPL
ACGIISGKYGNGVPESSRASLKCYQWLKERIVSEEGRKQQNKLKDLSPIAERLGCTLPQLAVAWCLRNEG
VSSVLLGSSTPEQLIENLGAIQVLPKMTSHVVNEIDNILRNKPYSKKDYRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_010597

ORF Size: 1206 bp

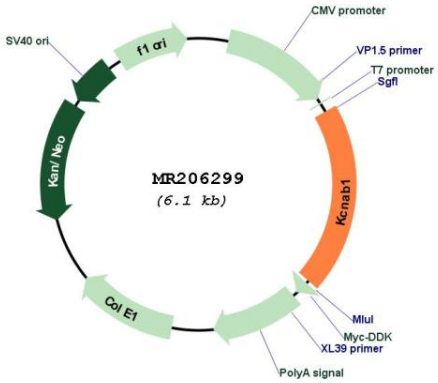
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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_010597.5
RefSeq Size:	3267 bp
RefSeq ORF:	1206 bp
Locus ID:	16497
UniProt ID:	P63143
Cytogenetics:	3 30.15 cM
MW:	44.7 kDa
Gene Summary:	Cytoplasmic potassium channel subunit that modulates the characteristics of the channel-forming alpha-subunits (PubMed:10454353). Modulates action potentials via its effect on the pore-forming alpha subunits (PubMed:10454353). Promotes expression of the pore-forming alpha subunits at the cell membrane, and thereby increases channel activity (PubMed:8824288). Mediates closure of delayed rectifier potassium channels by physically obstructing the pore via its N-terminal domain and increases the speed of channel closure for other family members (By similarity). Promotes the closure of KCNA1, KCNA2 and KCNA5 channels (By similarity). Accelerates KCNA4 channel closure (By similarity). Accelerates the closure of heteromeric channels formed by KCNA1 and KCNA4 (By similarity). Accelerates the closure of heteromeric channels formed by KCNA2, KCNA5 and KCNA6 (By similarity). Enhances KCNB1 and KCNB2 channel activity (PubMed:8824288). Binds NADPH; this is required for efficient down-regulation of potassium channel activity (By similarity). Has NADPH-dependent aldoketoreductase activity (By similarity). Oxidation of the bound NADPH strongly decreases N-type inactivation of potassium channel activity (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206299