

Product datasheet for MC226865

Kcnab1 (NM_001289450) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnab1 (NM_001289450) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kcnab1
Synonyms:	Akr8a8; Kvbeta1.1; mKv(beta)1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC226865 representing NM_001289450 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGACAATTGCCTACGAAAGTGGAGTTAATCTCTTCGACACAGCTGAGGTCTATGCTGCTGGGAAGGCTG
AGGTGATTCTGGGAAGCATCATCAAGAAGAAAGGCTGGAGGAGGTCCAGCTTGGTCATCACAAACAACT
CTACTGGGGTGGAAAAGCTGAGACAGAAAGGGGACTGTCAAGAAAGCACATCATTGAAGGACTGAAAGGC
TCCCTCCAGAGGCTGCAACTGGAATACGTGGATGTGGTCTTTGCAATCGCCAGACAGCAACACTCCCA
TGGAAGAAATCGTTCGAGCCATGACGCACGTGATCAACCAAGGCATGGCCATGTACTGGGGCACCTCGAG
GTGGAGCGCATGGAGATCATGGAAGCCTACTCTGTCGACGGCAGTTCAACATGATCCCGCCTGTCTGT
GAGCAAGCTGAGTACCATCTTTCCAGAGAGAGAAGGTGGAGGTCCAGCTGCCGGAGCTCTACCATAAAA
TAGGAGTTGGTGAATGACATGGTCTCCACTTGCTTGGAATTATTTCAAGAAAATATGGAATGGGGT
GCCAGAAAGTTCTAGAGCTTCACTGAAGTGCTACCAAGTGGTTGAAGGAAAGAATCGTAAGTGAAGAAGGG
AGAAAACAGCAAAACAAGCTGAAAGACCTCTCTCAATCGCTGAGCGCCTGGGGTGACGCTACCTCAGC
TGGCTGTGGCGTGGTGCCTGAGAAATGAGGGTGTGAGTTCTGTGCTCCTGGGATCATCACTCCGGAACA
ACTCATTGAAAACCTTGGTGCCATTGAGGTCTCCCTAAGATGACATCTCACGTGGTGAACGAGATTGAT
AACATACTGCGCAACAAGCCCTACAGCAAAAAGGACTATAGATCA**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001289450
Insert Size:	888 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001289450.1, NP_001276379.1</u>
RefSeq Size:	2851 bp
RefSeq ORF:	888 bp
Locus ID:	16497
Cytogenetics:	3 30.15 cM
Gene Summary:	<p>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 aldo-ketoreductase activity (By similarity). Oxidation of the bound NADPH strongly decreases N-type inactivation of potassium channel activity (By similarity).</p> <p>[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR and coding sequence compared to variant 1. The resulting isoform (2) is shorter at the N-terminus compared to isoform 1.</p>