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Product datasheet for MC227233

Kcnab2 (NM_001252654) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kcnab2 (NM_001252654) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kcnab2
Synonyms:	F5; I2rf5; Kcnb3; kv-beta-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC227233 representing NM_001252654 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTATCCGGAATCAACCACGGGGTCCCCAGCTCGACTCTCCCTGCGGCAGACAGGCTCCCCCGGGATGA TCTACAGGAATCTGGGCAAATCTGGCCTTCGGGTCTCCTGCCTGGGGCTTGGAACATGGGTGACCTTCGG GGGCCAGATCACGGATGAGATGGCAGAGCACCTAATGACCTTGGCCTACGATAATGGCATCAACCTGTTC GATACGGCGGAGGTCTACGCTGCTGGAAAAGCTGAAGTGGTATTAGGGAACATCATTAAGAAGAAGGGAT GGAGACGGTCCAGCCTTGTCATCACCACCAAGATCTTCTGGGGTGGAAAAGCGGAGACTGAGAGAGGCCT TTCCAGGAAGCACATAATTGAAGGACTGAAAGCGTCCCTGGAGCGGCTGCAGCTGGAGTACGTGGATGTG GTTTTTGCCAACCGCCCAGACCCCAACACGCCCATGGAAGAGACCGTGCGGGCCATGACCCATGTCATCA ACCAGGGGATGGCCATGTACTGGGGCACATCACGCTGGAGCTCCATGGAGATCATGGAGGCCTACTCGGT GGCTCGGCAGTTCAACCTGATCCCGCCCATCTGCGAGCAAGCGGAATATCACATGTTCCAGAGGGAGAAG GTGGAGGTCCAGCTGCCAGAGCTGTTCCACAAGATAGGAGTAGGTGCCATGACCTGGTCCCCTCTGGCGT GCGGCATCGTCTCAGGGAAGTATGACAGCGGGATCCCACCCTACTCCAGAGCCTCCCTGAAGGGCTACCA GTGGTTGAAGGACAAGATCCTGAGTGAGGAGGGTCGCCGCCAGCAGGCCAAGCTGAAGGAACTGCAGGCC ATTGCCGAACGCCTGGGCTGCACCCTACCCCAGCTGGCCATAGCCTGGTGCCTGAGGAATGAGGGTGTCA GCTCCGTGCTTCTGGGTGCTTCCAATGCAGAACAACTTATGGAGAACATTGGAGCAATACAGGTCCTTCC AAAATTGTCGTCTTCCATCGTCCACGAGATCGACAGCATTCTGGGCAATAAACCCTACAGCAAAAAGGAC TATAGATCCTAA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Restriction Sites:	SgfI-MluI
ACCN:	NM_001252654

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Insert Size:	1062 bp
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:	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_001252654.1, NP_001239583.1
RefSeq Size:	3562 bp
RefSeq ORF:	1062 bp
Locus ID:	16498
Cytogenetics:	4 83.08 cM
Gene Summary:	Cytoplasmic potassium channel subunit that modulates the characteristics of the channel-forming alpha-subunits (PubMed:8576199). Contributes to the regulation of nerve signaling, and prevents neuronal hyperexcitability (PubMed:11825900, PubMed:21209188). Promotes expression of the pore-forming alpha subunits at the cell membrane, and thereby increases channel activity (By similarity). Promotes potassium channel closure via a mechanism that does not involve physical obstruction of the channel pore (PubMed:8576199). Modulates the functional properties of KCNA4 (By similarity). Modulates the functional properties of KCNA5 (PubMed:8576199). Enhances KCNB2 channel activity (PubMed:8824288). Modulates the functional properties of KCNA5 (PubMed:8576199). Binds NADPH and has NADPH-dependent aldoketoreductase activity (By similarity). Has broad substrate specificity and can catalyze the reduction of methylglyoxal, 9,10-phenanthrenequinone, prostaglandin J2, 4-nitrobenzaldehyde, 4-nitroacetophenone and 4-oxo-trans-2-nonenal (in vitro) (By similarity). [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (4) differs in the 5' UTR and lacks an in-frame exon in coding region, compared to variant 1. Both variants 3 and 4 encode the same isoform (2).