

Product datasheet for **MG222882**

Cacna1b (NM_001042528) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cacna1b (NM_001042528) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cacna1b
Synonyms:	alpha(1B); AW050276; AW060892; AW822256; Billi; Cav2.2; Cchn1a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222882 representing NM_001042528 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCCGCTTCGGGACGAGCTAGGCGGCCGCTATGGGGCACCGCGCGGGAGCGGGCTCGGGGTG
GCGGGGCCGGGGCGGGTGGCCCGGGCCAGGGGGTCTGCCGCGGGCCAGCGGGTCTGTACAAGCA
GTCCATTGCGCAGCGCGCAGGACTATGGCCCTGTACAACCCATCCCAGTCAAGCAGAAGTCTTACC
GTCAACCGCTCGCTTTCGTCCTCAGCGAGGACAACGTCGTCGCAAATACGCTAAGCGCATCACGAAT
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CCTCCCTGATGGGACAAGACTCCCATGTCTGAGCGACTAGATGACACGGAGCCTTACTTCATCGGGATC
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GTGGTGGCCCTGAACACACTGTGTGTGGCCATGGTGCCTATAATCAGCCTCAGCGGCTTACCACTGCAC
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GGCGTCCGGGCGGCGCACAGCTACCACCACCCGATCAGGACCACTGGTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG222882 representing NM_001042528
 Red=Cloning site Green=Tags(s)

MVRFGDELGGRYGGTGGGERARGGGAGGAGGPGQGGGLPPGQRVL YKQSI AQRARTMAL YNP I PVKQNCFT
 VNRSLFVFS EDNVVRKYAKRIT E W P P F E Y M I L A T I I A N C I V L A L E Q H L P D G K T P M S E R L D D T E P Y F I G I
 F C F E A G I K I I A L G F V F H K G S Y L R N G W N V M D F V V L T G I L A T A G T D F D L R T L R A V R V L R P L K L V S G I P S L Q
 V V L K S I M K A M V P L L Q I G L L L F F A I L M F A I I G L E F Y M G K F H K A C F P N S T D T E P V G D F P C G K D P P A R Q C D G D
 T E C R E Y W P G P N F G I T N F D N I L F A I L T V F Q C I T M E G W T D I L Y N T N D A A G N T W N W L Y F I P L I I I G S F M L N L
 V L G V L S G E F A K E R E R V E N R R A F L K L R R Q Q I E R E L N G Y L E W I F K A E E V M L A E E D K N A E E K S P L D V L K R A A
 T K K S R N D L I H A E E G E D R F V D L C A V G S P F A R A S L K S G K T E S S Y F R R K E K M F R F F I R R M V K A Q S F Y W V V L C
 V V A L N T L C V A M V H Y N Q P Q R L T T A L Y F A E F V F L G L F L T E M S L K M Y G L G P R S Y F R S S F N C F D F G V I V G S I F E
 V V W A A I K P G T S F G I S V L R A L R L L R I F K V T K Y W N S L R N L V V S L L N S M K S I I S L L F L L F I V V F A L L G M Q L
 F G G Q F N F Q D E T P T T N F D T F P A A I L T V F Q I L T G E D W N A V M Y H G I E S Q G G V S K G M F S S F Y F I V L T L F G N Y T L
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 A T E S A D L P R R H R H R D R D K T S A T A P A G G E Q D R T E S T E T G A R E E R A R P R R S H S K E T P G A D T Q V R C E R S R R H
 H R R G S P E A T E R E P R R H R A H R H A Q D S S K E G T A P V L V P K G E R R A R H R G P R T G P R E A E N N E E P T R R H R A R H K
 V P P T L Q P P E R A A E K E S N A V E G D K E T R N H Q P K E P H C D L E A I A V T G V G P L H M L P S T C L Q K V D E Q P E D A D N Q
 R N V T R M G S Q P S D P S T T V H V P V T L T G P P G E T P V V P S G N M N L E G Q A E G K K E A E A D D V L R R G P R P I V P Y S S M F
 C L S P T N L L R R F C H Y I V T M R Y F E M V I L V V I A L S S I A L A A E D P V R T D S F R N N A L K Y M D Y I F T G V F T F E M V I K
 M I D L G L L L H P G A Y F R D L W N I L D F I V V S G A L V A F A F S S F M G G S K G K D I N T I K S L R V L R V L R P L K T I K R L P K
 L K A V F D C V V N S L K N V L N I L I V Y M L F M F I F A V I A V Q L F K G K F F Y C T D E S K E L E R D C R G Q Y L D Y E K E E V E A Q
 P R Q W K K Y D F H Y D N V L W A L L T L F T V S T G E G W P M V L K H S V D A T Y E E Q G P S P G F R M E L S I F Y V V Y F V V F P F F F
 V N I F V A L I I I T F Q E Q G D K V M S E C S L E K N E R A C I D F A I S A K P L T R Y M P Q N K Q S F Q Y K T W T F V V S P P F E Y F I
 M A M I A L N T V V L M M K F Y D A P Y E Y E L M L K C L N I V F T S M F S M E C I L K I I A F G V L N Y F R D A W N V D F V T V L G S I
 T D I L V T E I A N N F I N L S F L R L F R A A R L I K L L R Q G Y T I R I L L W T F V Q S F K A L P Y V C L L I A M L F F I Y A I I G M Q
 V F G N I A L D D D T S I N R H N N F R T F L Q A L M L L F R S A T G E A W H E I M L S C L G N R A C D P H A N A S E C G S D F A Y F Y F V
 S F I F L C S F L M L N L F V A V I M D N F E Y L T R D S S I L G P H H L D E F I R V W A E Y D P A A C G R I S Y N D M F E M L K H M S P P
 L G L G K K C P A R V A Y K R L V R M N M P I S N E D M T V H F T S T L M A L I R T A L E I K L A P A G T K Q H Q C D A E L R K E I S S V W
 A N L P Q K T L D L L V P P H K P D E M T V G K V Y A A L M I F D F Y K Q N K T T R D Q T H Q A P G G L S Q M G P V S L F H P L K A T L E Q
 T Q P A V L R G A R V F L R Q K S A T S L S N G G A I Q T Q E S G I K E S L S W G T Q R T Q D A L Y E A R A P L E R G H S A E I P V G Q S G
 T L A V D V Q M Q N M T L R G P D G E P Q P G L E S Q G R A A S M P R L A A E T Q P A P N A S P M K R S I S T L A P R P H G T Q L C S T V L
 D R P P P S Q A S H H H H R C H R R R D K K Q R S L E K G P S L S V D P E G A P S T A A G P L P H G E G S T A C R R D R K Q E R G R S Q
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 G R G G R R Q L P Q T P L T P R P S I T Y K T A N S S P V H F A E G Q S G L P A F S P G R L S R G L S E H N A L L Q K E P L S Q P L A P G S
 R I G S D P Y L G Q R L D S E A S A H T L P E D T L T F E E A V A T N S G R S S R T S Y V S S L T S Q S H P L R R V P N G Y H C T L G L S T
 G V R A R H S Y H H P D Q D H W C

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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_001042528.2](#), [NP_001035993.1](#)

RefSeq Size: 6984 bp

RefSeq ORF: 6984 bp

Locus ID: 12287

UniProt ID: [O55017](#)

Cytogenetics: 2 16.58 cM

Gene Summary: Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1B gives rise to N-type calcium currents. N-type calcium channels belong to the 'high-voltage activated' (HVA) group and are specifically blocked by omega-conotoxin-GVIA (AC P01522) (By similarity). They are however insensitive to dihydropyridines (DHP). Calcium channels containing alpha-1B subunit may play a role in directed migration of immature neurons.[UniProtKB/Swiss-Prot Function]