

Product Information

MemDX™ Membrane Protein Human CACNA1B (Calcium voltage-gated channel subunit alpha1 B) Full Length

Cat. No.: **MPC0421K**

This product is for research use only and is not intended for diagnostic use.

This product is a 262.4 kDa Human CACNA1B membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species

Human

Target Protein

CACNA1B

Protein Length

Full length

Protein Class

Transporter; Ion channel

Molecular Weight

262.4 kDa

TMD

24

Sequence

MVRFGLDELGGRYGGPGGGERARGGGAGGAGGPGPGGLQPGQRVLYKQSLA
QRARTMALYNPIPVKQNCFTVNRSFLVFSEDNVVRKYAKRITEWPPFEYM
ILATIIANCIVLALEQHLDPGDKTPMSERLDDTEPYFIGIFCFEAGIKII
ALGFVFHKGSYLRNGWNVMDFVVVLTGILATAGTDFDLRTLRAVRVLRPL
KLVSIGPSLQVVLKSIMKAMVPLLQIGLLLFFAILMFAIIGLEFYMGKFH
KACFPNSTDAEPVGDFPCGKEAPARLCEGDTECREYWPGPNFGITNFDNI
LFAILTVFQCITMEGWTDILYNTNDAAGNTWNWLYFIPLIIIGSFFMLNL
VLGVLSGEFAKERERVENRRAFLKLRRQQQIERELNGYLEWIFKAEEVML
AEEDRNAEEKSPLDVLKRAATKKSRLNDLIHAEEGEDRFADLCAVGSPFAR
ASLKSGKTESSYFRRKEKMFRRFFIRRMVKAQSFYWVVL CVVALNTLCVA
MVHYNQPRRLTTTLYFAEFVFLGLFLTEMSLKMYGLGPRSYFRSSFNCFD
FGVIVGSVFEVWAAIKPGSSFGISVLRLRLRLRIFKVTKYWSSLRNLVV
SLLNSMKSIISLLFLLFIVVFALLGMQLFGGQFNFDPTTNTNFDTFP
AAILTVFQILTGEDWNAVMYHGIESQGGVSKGMFSSFYFIVLTLFGNYTL
LNVFLAIAVDNLANAQELTKDEEEMEEAANQKLALQAKEVAEVSPMSAA
NISIAARQQNSAKARSVWEQRASQLRLQNLRASCEALYSEMDPEERLRFA
TTRHLRPDMKTHLDRPLVVELGRDGARGPVGGKARPEAAEAPEGVDPPRR
HHRHRDKDKTPAAGDQDRAEAPKAESGEPGAREERPRPHRSHSKEAAGPP
EARSERGRGPGPEGGRRHRRGSPPEAAEREPRRHRAHRHQDPSKECAGA

KGERRARHRGGPRAGPREAESGEEPARRHRARHKAQPAHEAVEKETTEKE
ATEKEAEIVEADKEKELRNHQPREPHCDLETSGTVTVGPMHTLPSTCLQK
VEEQPEDADNQNRNVTMRGSGPPDPNTIVHIPVMLTGPLGEATVVPNGNVD
LESQAEGKKEVEADDVMRSGPRPIVPYSSMFCLSPTNLLRRFCHYIVTMR
YFEVVILVVIALSSIALAAEDPVRTDSPRNNALKYLDYIFTGVFTFEMVI
KMIDLGLLLHPGAYFRDLWNILDFIVVSGALVAFASGSGKGDINTIKSL
RVLRLVRLPLKTIKRLPKLKAVFDCVVNSLKNVLNIVMLFMFIFAVIA
VQLFKGKFFYCTDESKELERDCRGQYLDYEKEEVEAQPRQWKYDFHYDN
VLWALLTLFTVSTGEGWPMVLKHSVDATYEEQGPSPGYRMELSIFYVVYF
VVFPPFFVNIFVALIITFQEQGDKVMSECSLEKNERACIDFAISAKPLT
RYMPQNRQSFQYKTTWTFVVSPPFEYFIMAMIALNTVVLMMKFYDAPYEYE
LMLKCLNIVFTSMFSMECVLKIAFGVLNRYFRDAWNVDFVTVLGSITDI
LVTEIAETNNFINLSFLRLFRAARLIKLLRQGYTIRILLWTFVQSFKALP
YVCLLIAMLFFIYAIIGMQVFGNIALDDDSINRHNNFRTFLQALMLLFR
SATGEAWHEIMLSCLSNQACDEQANATECGSDFAYFYFVSFIFLCSFLML
NLFVAVIMDNFEYLTRDSSILGPHHLDEFIRVWAEYDPAACGRISYNDMF
EMLKHMSPPLGLGKKCPARVAYKRLVRMNMPISEDMTVHFTSTLMALIR
TALEIKLAPAGTKQHQCDAELRKEISVVWANLPQKTLDLLVPPHKPDEM
VGKVYAALMIFDFYKQNKTTTRDQMQQAPGGLSQMGPVSLFHPLKATLEQT
QPAVLRGARVFLRQKSSTLSNGGAIQNQESGIKESVSWGTQRTQDAPHE
ARPPLERGHSTEIPVGRSGALAVDVQMQSITRRGPDGEPQPGLESQGRAA
SMPRLAAETQPVTDASPMKRSISTLAQRPRGTHLCSTTPDRPPPSQASSH
HHHHRCHRRRDRKQRSLEKGPSLSADMDGAPSSAVGPGPLPPGEGPTGCRR
ERERRQERGRSQERRQPSSSSSSEKQRFYSCDRFGGREPPKPKPSLSSHPT
SPTAGEPGPHPPQSGSVNGSPLLSTSGASTPGRGGRRQLPQTPLTPRPS
ITYKTANSSPIHFAGAQTSLPAFSPGRLSRGLSEHNALLQRDPLSQPLAP
GSRIGSDPYLGQRLDSEASVHALPEDTLTFEEAVATNSGRSSRTSYVSSL
TSQSHPLRRVPNGYHCTLGLSSGGRARHSYHHPDQDHC

Product Description

Expression Systems

HEK293

Tag

Based on specific requirements

Protein Format

Detergent or based on specific requirements

Form

Liquid

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

Target

Target Protein

CACNA1B

Full Name

Calcium voltage-gated channel subunit alpha1 B

Introduction

The protein encoded by this gene is the pore-forming subunit of an N-type voltage-dependent calcium channel, which

controls neurotransmitter release from neurons. The encoded protein forms a complex with alpha-2, beta, and delta subunits to form the high-voltage activated channel. This channel is sensitive to omega-conotoxin-GVIA and omega-agatoxin-IIIa but insensitive to dihydropyridines. Two transcript variants encoding different isoforms have been found for this gene.

Alternative Names

BIII; CACNN; DYT23; Cav2.2; NEDNEH; CACNL1A5; voltage-dependent N-type calcium channel subunit alpha-1B; Cav2.2 voltage-gated Ca²⁺ channel; brain calcium channel III; calcium channel alpha12.2 subunit; calcium channel, L type, alpha-1 polypeptide; calcium channel, voltage-dependent, L type, alpha 1B subunit; calcium channel, voltage-dependent, N type, alpha 1B subunit; voltage-gated calcium channel alpha subunit Cav2.2; voltage-gated calcium channel subunit alpha Cav2.2; CACNA1B; Calcium voltage-gated channel subunit alpha1 B

Gene ID

[774](#)

UniProt ID

[Q00975](#)