Blocking Blocking Peptide – >85% Purity

PRODUCT OVERVIEW

Product Name	CACNA2D4, Blocking Peptide
Full Product Name	CACNA2D4 Blocking Peptide
Product Gene Name	CACNA2D4 blocking peptide
Product Synonym Names	Voltage-dependent calcium channel subunit alpha-2/delta-4; Voltage-gated calcium channel subunit alpha-2/delta-4
Host	Synthetic
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized Powder
Purity/Purification	>85%
Preparation and Storage	Store at -20 degree C for one year.
Molecular Weight	127,938 Da
Chromosome Location	Chromosome: 12; NC_000012.11 (1901123..2027870, complement). Location: 12p13.33
OMIM	608171
Quality Control	The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry.
Directions for Use	Blocking Peptide to the diluted primary antibody in a molar ratio of 10:1 (peptide to antibody) and incubate the mixture at 4 degree C for overnight or at room temperature for 2 hours.
Applications Tested/Suitable for CACNA2D4 blocking peptide	Blocking (BL)
Related Product Information for CACNA2D4 blocking peptide	MBS8308967 is a blocking peptide targeting CACNA2D4. Reactive in Human, Mouse, Rat. Host: Synthetic. The peptide is used to block Anti-CACNA2D4 Antibody reactivity.
Other Notes	Small volumes of CACNA2D4 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CACNA2D4. It may not necessarily be applicable to this product.

NCBI GI #	132566536
NCBI GeneID	93589
NCBI Accession #	NP_758952.4
UniProt Primary Accession #	Q7Z3S7
UniProt Secondary Accession #	Q5RJF7
UniProt Related Accession #	Q7Z3S7
GenBank Nucleotide #	NM_172364.4
NCBI Official Full Name	voltage-dependent calcium channel subunit alpha-2/delta-4

NCBI Official Synonym Full Names	calcium channel, voltage-dependent, alpha 2/delta subunit 4
NCBI Official Symbol	CACNA2D4
NCBI Official Synonym Symbols	RCD4
UniProt Protein Name	Voltage-dependent calcium channel subunit alpha-2/delta-4
UniProt Synonym Protein Names	Voltage-gated calcium channel subunit alpha-2/delta-4
Protein Family	Voltage-dependent calcium channel
UniProt Gene Name	CACNA2D4
UniProt Entry Name	CA2D4_HUMAN
NCBI Protein Information	voltage-dependent calcium channel subunit alpha-2/delta-4; voltage-gated calcium channel alpha(2)delta-4 subunit; voltage-gated calcium channel subunit alpha-2/delta-4
NCBI Summary for CACNA2D4	This gene encodes a member of the alpha-2/delta subunit family, a protein in the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization and consist of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. Various versions of each of these subunits exist, either expressed from similar genes or the result of alternative splicing. Research on a highly similar protein in rabbit suggests the protein described in this record is cleaved into alpha-2 and delta subunits. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]
UniProt Comments for CACNA2D4	CACNA2D4: The alpha-2/delta subunit of voltage-dependent calcium channels regulates calcium current density and activation/inactivation kinetics of the calcium channel. Defects in CACNA2D4 are the cause of retinal cone dystrophy 4 (RCD4). RCD4 is characterized by minimal symptoms except for slowly progressive reduction in visual acuity. Belongs to the calcium channel subunit alpha-2/delta family. 6 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Channel, calcium Chromosomal Location of Human Ortholog: 12p13.33 Cellular Component: voltage-gated calcium channel complex Molecular Function: voltage-gated calcium channel activity; metal ion binding Biological Process: detection of light stimulus involved in visual perception Disease: Retinal Cone Dystrophy 4
Research Articles on CACNA2D4	**1.** A rare, partial deletion of 35.7 kb in CACNA2D4 in two unrelated late onset bipolar I patients and in one control individual, were identified.
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