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Product datasheet for PH304796

Calmodulin (CALM2) (NM_001743) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	CALM2 MS Standard C13 and N15-labeled recombinant protein (NP_001734)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC204796
Predicted MW:	16.8 kDa
Protein Sequence:	>RC204796 protein sequence Red=Cloning site Green=Tags(s) MADQLTEEQIAEFKEAFSLFDKDGDGTITTKELGTVMRSLGQNPTEAELQDMINEVDADGNGTIDFPEFL TMMARKMKDTDSEEEIREAFRVFDKDGNGYISAAELRHVMTNLGEKLTDEEVDEMIREADIDGDGQVNYE EFVQMMTAK TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_001734
RefSeq Size:	1309
RefSeq ORF:	447
Synonyms:	CALM; CALML2; caM; CAM1; CAM3; CAMC; CAMII; CAMIII; LQT15; PHKD; PHKD2
Locus ID:	805
UniProt ID:	P62158, P0DP23, P0DP24, P0DP25, B4DJ51

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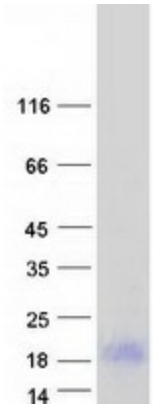
Cytogenetics: 2p21

Summary: This gene is a member of the calmodulin gene family. There are three distinct calmodulin genes dispersed throughout the genome that encode the identical protein, but differ at the nucleotide level. Calmodulin is a calcium binding protein that plays a role in signaling pathways, cell cycle progression and proliferation. Several infants with severe forms of long-QT syndrome (LQTS) who displayed life-threatening ventricular arrhythmias together with delayed neurodevelopment and epilepsy were found to have mutations in either this gene or another member of the calmodulin gene family (PMID:23388215). Mutations in this gene have also been identified in patients with less severe forms of LQTS (PMID:24917665), while mutations in another calmodulin gene family member have been associated with catecholaminergic polymorphic ventricular tachycardia (CPVT)(PMID:23040497), a rare disorder thought to be the cause of a significant fraction of sudden cardiac deaths in young individuals. Pseudogenes of this gene are found on chromosomes 10, 13, and 17. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Mar 2015]

Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, Calcium signaling pathway, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term potentiation, Melanogenesis, Neurotrophin signaling pathway, Olfactory transduction, Oocyte meiosis, Phosphatidylinositol signaling system, Vascular smooth muscle contraction

Product images:



Coomassie blue staining of purified CALM2 protein (Cat# [TP304796]). The protein was produced from HEK293T cells transfected with CALM2 cDNA clone (Cat# [RC204796]) using MegaTran 2.0 (Cat# [TT210002]).