

## **Product datasheet for TP304796L**

## OriGene Technologies, Inc.

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## Calmodulin (CALM2) (NM\_001743) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human calmodulin 2 (phosphorylase kinase, delta) (CALM2), 1 mg

Species: Human
Expression Host: HEK293T

**Expression cDNA Clone** >RC204796 protein sequence or AA Sequence: Red=Cloning site Green=Tags(s)

MADQLTEEQIAEFKEAFSLFDKDGDGTITTKELGTVMRSLGQNPTEAELQDMINEVDADGNGTIDFPEFL TMMARKMKDTDSEEEIREAFRVFDKDGNGYISAAELRHVMTNLGEKLTDEEVDEMIREADIDGDGQVNYE

**EFVQMMTAK** 

**TRTRPL**EQKLISEEDLAANDILDYKDDDDK**V** 

Tag: C-Myc/DDK

**Predicted MW:** 16.7 kDa

Concentration:  $>0.05 \mu g/\mu L$  as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 001734

Locus ID: 805

UniProt ID: <u>P62158</u>, <u>P0DP23</u>, <u>P0DP24</u>, <u>P0DP25</u>, <u>B4DJ51</u>

RefSeq Size: 1309



Cytogenetics: 2p21

RefSeg ORF: 447

Synonyms: CALM; CALML2; caM; CAM1; CAM3; CAMC; CAMII; CAMIII; LQT15; PHKD; PHKD2

**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]

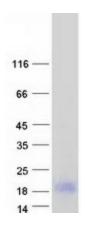
**Protein Families:** Druggable Genome

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]).