

 Rudolf-Wissell-Str. 28

 37079 Göttingen, Germany

 Phone:
 +49 551-50556-0

 Fax:
 +49 551-50556-384

 E-mail:
 sales@sysy.com

 Web:
 www.sysy.com

CaMK 1

Cat.No. 211 005; Polyclonal Guinea pig antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 μ g specific antibody, lyophilized. Affinity purified with the immunogen. Guinea pig serum albumin was added for stabilization. For reconstitution add 50 μ l H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 500 IHC: not tested yet IHC-P/FFPE: not tested yet
Immunogen	Recombinant protein corresponding to AA 1 to 374 from mouse CaMK1 (UniProt Id: Q91YS8)
Reactivity	Reacts with: human (Q14012), rat (Q63450), mouse (Q91YS8). Other species not tested yet.
Specificity	Specifiy for CaMK 1, recognizes all isoforms (a, $\beta,\gamma,$ and $\delta).$

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Calcium- and cal**m**odulin-dependent **k**inase **1** (**CaMK 1**) is a serine/threonine kinase that belongs to the family of calcium-dependent kinases consisting of CaMK 2, CaMK 4, and CaMKK (CaMK-kinase). Four different isoforms (CaMK 1 α , β , γ , and δ) derived from independent genes have been described. CaMK 1 is the most abundant isoform in the central nervous system and is involved in cellular differentiation processes.

Selected General References

A calcium- and calmodulin-dependent kinase lalpha/microtubule affinity regulating kinase 2 signaling cascade mediates calciumdependent neurite outgrowth. Uboha NV, Flajolet M, Nairn AC, Picciotto MR

The Journal of neuroscience : the official journal of the Society for Neuroscience (2007) 27(16): 4413-23.

Phosphorylation of Numb family proteins. Possible involvement of Ca2+/calmodulin-dependent protein kinases. Tokumitsu H, Hatano N, Inuzuka H, Sueyoshi Y, Yokokura S, Ichimura T, Nozaki N, Kobayashi R The Journal of biological chemistry (2005) 280(42): 35108-18.

Calmodulin-dependent kinase I regulates adrenal cell expression of aldosterone synthase. Condon JC, Pezzi V, Drummond BM, Yin S, Rainey WE Endocrinology (2002) 143(9): 3651-7.

Inhibition of the Ca2+/calmodulin-dependent protein kinase I cascade by cAMP-dependent protein kinase. Matsushita M, Nairn AC The Journal of biological chemistry (1999) 274(15): 10086-93.

Characterization of the mechanism of regulation of Ca2+/ calmodulin-dependent protein kinase I by calmodulin and by Ca2+/calmodulin-dependent protein kinase kinase. Matsushita M, Nairn AC The Journal of biological chemistry (1998) 273(34): 21473-81.

Calcium/calmodulin-dependent protein kinase I. cDNA cloning and identification of autophosphorylation site. Picciotto MR, Czernik AJ, Nairn AC The Journal of biological chemistry (1993) 268(35): 26512-21.