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Recombinant Human CAMK1G / CLICK III / CaMKIgamma Protein (His & GST tag)

产品货号: TP08351

第三版

别名:CLICK3;CLICKIII;dJ272L16.1;RP1-272L16.2;VWS1

描述: Calmodulin-Dependent Protein Kinase (CaM Kinase) is a kind of protein phosphorylate multiple downstream targets. Concentration of cytosolic calcium functions as a second messenger that mediates a wide range of cellular responses. Calcium binds to calcium binding proteins (calmodulin/CaM) and stimulates the activity of a variety of enzymes, including CaM kinases referred to as CaM-kinases (CaMKs), such as CaMKI, CaMKII, CaMKIV and CaMKK. Calmodulin-dependent protein kinase CL3/CaMKI is a membrane-anchored CaMK belonging to the CaM kinase family. Its C-terminal region is uniquely modified by two sequential lipidification steps: prenylation followed by a kinase-activity-regulated palmitoylation. These modifications are essential for CaMKI membrane anchoring and targeting into detergent-resistant lipid microdomains in the dendrites. It has been found that CaMKI critically contributed to BDNF-stimulated dendritic growth. Raft insertion of CaMKI specifically promoted dendritogenesis of cortical neurons by acting upstream of RacGEF STEF and Rac, both present in lipid rafts. Thus, CaMKI may represent a key element in the Ca²⁺-dependent and lipid-raft-delineated switch that turns on extrinsic activity-regulated dendrite formation in developing cortical neurons.

配方: PBS

分子量: 81 kDa

序列: Met 1-Met 476

纯度: > 95% by HPLC

浓度:

内毒素: <1.0 EU per 1 ug of protein (determined by LAL method)

存储: +4 ° C 保存 (1-2 周). 长期保存在 -20 ° C 或者 -70 ° C. 避免反复冻融.