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CAMK1b, Active recombinant protein

CAMK1b, Calcium/calmodulin-dependent protein kinase type I beta chain
Catalog # PBV11305r

Specification

CAMK1b, Active recombinant protein - Product info

Primary Accession	Q14012
Concentration	0.1
Calculated MW	64.0 kDa KDa

CAMK1b, Active recombinant protein - Additional Info

Gene ID	8536
Gene Symbol	CAMK1B

Other Names
CAMK1b, Calcium/calmodulin-dependent protein kinase type I beta chain

Source	Baculovirus (Sf9 insect cells)
Assay&Purity	SDS-PAGE; ≥90%
Assay2&Purity2	HPLC;
Recombinant	Yes

Format
Liquid

Storage
-80°C; Recombinant protein in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).

CAMK1b, Active recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CAMK1b, Active recombinant protein - Images

CAMK1b, Active recombinant protein - Background

Many of the effects of calcium are mediated via its interaction with calmodulin and the subsequent activation of Ca(2+)/calmodulin-dependent (CaM) kinases. CaM kinases are involved in a wide variety of cellular processes including muscle contraction, neurotransmitter release, cell cycle control, and transcriptional regulation. While CaMKII has been implicated in learning and memory,

the biological role of the other multifunctional CaM kinases, CaMKI and CaMKIV, is largely unknown. CaMKIβ, or pregnancy upregulated non-ubiquitously expressed CaM kinase (PNCK), is a 38-kDa serine/threonine kinase whose catalytic domain shares 45-70% identity with members of the CaM kinase family. The gene for CaMKIβ localizes to mouse chromosome X. CaMKIβ is upregulated during intermediate and late stages of murine fetal development with highest levels of expression in developing brain, bone, and gut. CaMKIβ is also expressed in a tissue-specific manner in adult mice with highest levels of expression detected in brain, uterus, ovary, and testis. Interestingly, CaMKIβ expression in these tissues is restricted to particular compartments and appears to be further restricted to subsets of cells within those compartments. The chromosomal localization of CaMKIβ, along with its tissue-specific and restricted pattern of spatial expression during development, suggests that CaMKIβ may be involved in a variety of developmental processes including development of the central nervous system (1). Also CaMKIβ2, an isoform of mCaMKIβ, was mainly identified in the nervous system, including brain, spinal cord, trigeminal ganglion, and retina. Within the CNS, the expression of CaMKIβ2 is detected in the mantle zone, but not in the ventricular zone, suggesting its possible involvement in the differentiation of neurons (2).