

CAMK1d, Active recombinant protein
CAMK, Calcium/calmodulin-dependent protein kinase type I delta chain
Catalog # PBV11289r

Specification

CAMK1d, Active recombinant protein - Product info

Primary Accession	O14012
Concentration	0.1
Calculated MW	60.0 kDa KDa

CAMK1d, Active recombinant protein - Additional Info

Gene ID	8536
Gene Symbol	CAMK1d
Other Names	
CAMK, Calcium/calmodulin-dependent protein kinase type I delta chain	

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

Storage

-80°C; Recombinant proteins 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).

CAMK1d, 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 Cytometry](#)
- [Cell Culture](#)

CAMK1d, Active recombinant protein - Images

CAMK1d, Active recombinant protein - Background

Calcium/calmodulin-dependent protein kinase ID (CAMK1D), or a novel Ca²⁺/calmodulin-dependent kinase I-like kinase (CKLiK), showed kinase activity and that the activity was enhanced by Ca(2+) and calmodulin. Using a novel antibody generated against the C-terminus of CKLiK, CKLiK was detected in CD34+-derived neutrophils and eosinophils, as well as

in mature peripheral blood granulocytes. Activation of human granulocytes by N-formyl-methionyl-leucyl-phenylalanine (fMLP) and platelet-activating factor (PAF), but not the phorbol ester PMA (phorbol 12-myristate-13-acetate), resulted in induction of CKLiK activity, in parallel with a rise of intracellular $[Ca^{2+}]$. Furthermore, fMLP-induced neutrophil migration on albumin-coated surfaces was perturbed, as well as $\beta 2$ -integrin-mediated adhesion. These findings suggest a critical role for CKLiK in modulating chemoattractant-induced functional responses in human granulocytes (1). Also, CAMK1D exhibits Ca^{2+} /CaM-dependent activity that is enhanced (approximately 30-fold) in vitro by phosphorylation of its Thr180 by CaM-K kinase (CaM-KK) α , consistent with detection of CAMK1D-activating activity in HeLa cells. Transiently expressed CAMK1D exhibited enhanced protein kinase activity in HeLa cells without ionomycin stimulation. This sustained activation of CAMK1D was completely abolished by Thr180Ala mutation and inhibited by CaM-KK inhibitor, STO-609, indicating a functional CaM-KK/ CAMK1D cascade in HeLa cells.

CAMK1d, Active recombinant protein - References

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Hsu L.-S., et al. J. Biol. Chem. 276:31113-31123(2001).