abcam

Product datasheet

Recombinant human CaMKK protein ab55692

4 Images

Description

Product name	Recombinant human CaMKK protein
Biological activity	Specific Activity: 10 nmol/min/mg
Purity	> 90 % Densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Specifications

Our **Abpromise guarantee** covers the use of **ab55692** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Liquid
Additional notes	**ab43614** (Human Myelin Basic Protein full length protein) can be utilized as a substrate for assessing Kinase activity

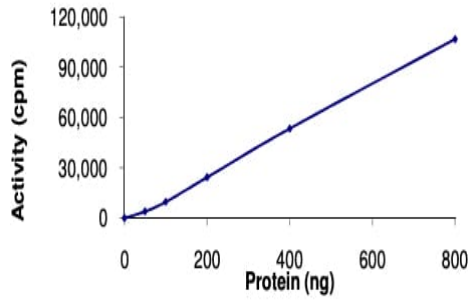
Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

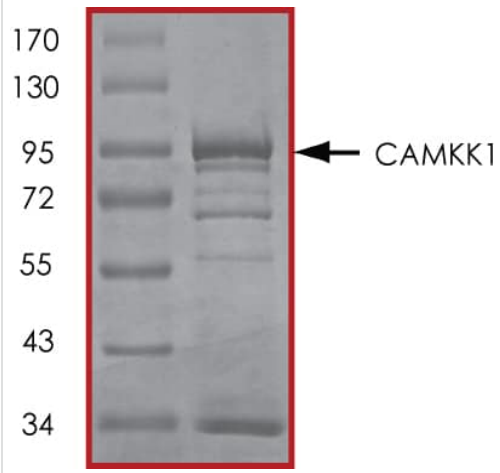
Function	Calcium/calmodulin-dependent protein kinase that belongs to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Phosphorylates CAMK1, CAMK1D, CAMK1G and CAMK4. Involved in regulating cell apoptosis. Promotes cell survival by phosphorylating AKT1/PKB that inhibits pro-apoptotic BAD/Bcl2-antagonist of cell death.
Sequence similarities	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Contains 1 protein kinase domain.
Domain	The autoinhibitory domain overlaps with the calmodulin binding region and may be involved in intrasteric autoinhibition. The RP domain (arginine/proline-rich) is involved in the recognition of CAMKI and CAMK4 as substrates.
Post-translational modifications	Appears to be autophosphorylated in a Ca(2+)/calmodulin-dependent manner. Phosphorylated at multiple sites by PRCAKA/PKA. Phosphorylation of Ser-458 is blocked upon binding to Ca(2+)/calmodulin. In vitro, phosphorylated by CAMK1 and CAMK4.
Cellular localization	Cytoplasm. Nucleus.

Images



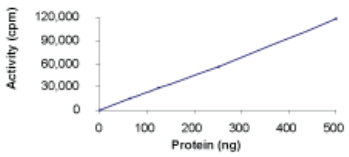
Functional Studies - Recombinant human CaMKK protein (ab55692)

The specific activity of CaMKK (ab55692) was determined to be 9 nmol/min/mg as per activity assay protocol



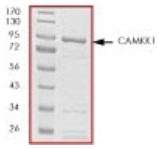
SDS-PAGE - Recombinant human CaMKK protein (ab55692)

SDS PAGE analysis of ab55692



Functional Studies - Recombinant human CaMKK protein (ab55692)

Kinase activity plot using ab55692. Specific acivity: 10nmol/min/mg.



SDS-PAGE - Recombinant human CaMKK protein (ab55692)

SDS-PAGE analysis of ab55692 with molecular weight markers. Approximate molecular weight: 94kDa

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