

Native Calmodulin Protein

Cat. No. Calmodulin-016 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Ca-binding protein. Activity of preparation is 25000-40000 μ /mg protein. The preparation is homogeneous by electrophoresis in 10 % PAAG conducted according to Davis. The protein has diverse functions that have to be elucidated

Description

Calmodulin (CaM) is a ubiquitous, calcium-binding protein that can bind to and regulate a multitude of different protein targets, thereby affecting many different cellular functions. CaM mediates processes such as inflammation, metabolism, apoptosis, muscle contraction, intracellular movement, short-term and long-term memory, nerve growth and the immune response. CaM is expressed in many cell types and can have different subcellular locations, including the cytoplasm, within organelles, or associated with the plasma or organelle membranes. Many of the proteins that CaM binds are unable to bind calcium themselves, and as such use CaM as a calcium sensor and signal transducer. CaM can also make use of the calcium stores in the endoplasmic reticulum, and the sarcoplasmic reticulum. CaM undergoes a conformational change upon binding to calcium, which enables it to bind to specific proteins for a specific response. CaM can bind up to four calcium ions, and can undergo post-translational modifications, such as phosphorylation, acetylation, methylation and proteolytic cleavage, each of which can potentially modulate its actions.

Tag

Non

Molecular Mass

About 17 kDa

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References

1. Takuwa N, Zhou W, Takuwa Y Ca, calmodulin and cell cycle progression Cell Signalling 1995, v. 7, N 2, 93-104
2. Horvath L et al Calmodulin is a potent target for new hypothalamic neuropeptides FEBS Lett 1990, v. 276, N 1,2, 197-201

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