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CALM
Native Bovine Brain Calmodulin, High Purity

Catalog No.	CNC004A CNC004B	**Quantity:**	1 mg 5 mg

Alternate Names: Calmodulin, CaM

Description: Calmodulin (CaM) is a low-molecular-weight Ca^{2+}-binding protein highly conserved in eukaryotes that serves as a physiological effector of a wide range of biological processes. CaM mediates processes such as inflammation, metabolism, apoptosis, muscle contraction, intracellular movement, short-term and long-term memory, nerve growth and the immune response. 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 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.

UniProt ID P62157

Source: Bovine brain

Molecular Weight: 16.5 kDa

Formulation: Lyophilized from 30 mM HEPES, pH 7.4, 1 mM $CaCl_2$, 0.1 mM DTT

Purity: ≥ 95% by SDS-PAGE

Extinction Coefficient: $E^{0.1\%}_{280nm} = 0.2$

Biological Activity: One unit is defi□ned as the amount of calmodulin causing 50% of the maximal enzyme activation of a standard level of activator-de□ficient calcineurin.

Specific Activity: > 250 Units/mg

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of > 0.1 mg/ml and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

Country of Origin: Prepared from tissue collected in the contiguous United States from animals under 30 months of age at a USDA inspected facility. Animals were inspected ante and postmortem and found free of infections diseases.

Storage & Stability: Store lyophilized protein at -20 to -80°C for at least 1 year or reconstituted stock solution in aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

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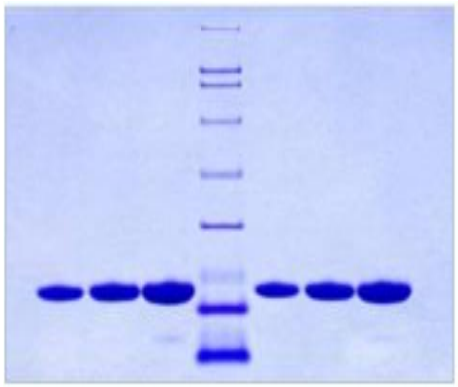
SDS-PAGE: 4 - 12% Bis-Tris NuPAGE



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