



Recombinant Human CALM1

Catalog #	EPT236
Expression Host	E.coli
DESCRIPTION	Recombinant Human Calmodulin is produced by our E.coli expression system and the target gene encoding Met1-Lys149 is expressed.
Accession	P0DP23
Synonyms	Calmodulin; CaM; CALM1; CALM; CAM; CAM1; CALM2; CAM2; CAMB; CALM3; CALML2; CAM3; CAMC; CAMIII
Mol Mass	16.8 KDa
AP Mol Mass	16 KDa, reducing conditions
Purity	Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin	Less than 0.1 ng/μg (1 EU/μg) as determined by LAL test.
FORMULATION	Lyophilized from a 0.2 μm filtered solution of 50mM NH ₄ HCO ₃ , pH 8.0 .
RECONSTITUTION	Always centrifuge tubes before opening.Do not mix by vortex or pipetting.





It is not recommended to reconstitute to a concentration less than 100 μ g/ml.

Dissolve the lyophilized protein in distilled water.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SHIPPING

The product is shipped at ambient temperature.

Upon receipt, store it immediately at the temperature listed below.

STORAGE

Lyophilized protein should be stored at $< -20^{\circ}\text{C}$, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at 4-7 $^{\circ}\text{C}$ for 2-7 days.

Aliquots of reconstituted samples are stable at $< -20^{\circ}\text{C}$ for 3 months.

BACKGROUND

Calmodulin (CaM) is a multifunctional intermediate calcium-binding messenger protein expressed in all eukaryotic cells. It is an intracellular target of the secondary messenger Ca^{2+} , and the binding of Ca^{2+} is required for the activation of Calmodulin. Once bound to Ca^{2+} , Calmodulin acts as part of a calcium signal transduction pathway by modifying its interactions with various target proteins such as





kinases or phosphatases. Calmodulin is a small, highly conserved protein that is 148 amino acids long. The protein has two approximately symmetrical globular domains each containing a pair of EF-hand motifs (the N- and C-domain) separated by a flexible linker region for a total of four Ca²⁺ binding sites. Calmodulin mediates many crucial processes such as inflammation, metabolism, apoptosis, smooth muscle contraction, intracellular movement, short-term and long-term memory, and the immune response. Calmodulin 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, but it is always found intracellularly.

SDS-PAGE

