

## 32-7696: Recombinant Human Calmodulin/CALM1

**Gene :** CALM1  
**Gene ID :** 801  
**Uniprot ID :** P62158

### Description

Source: E.coli.  
MW :16.8kD.

Recombinant Human Calmodulin is produced by our E.coli expression system and the target gene encoding Met1-Lys149 is expressed. 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<sup>2+</sup>, and the binding of Ca<sup>2+</sup> is required for the activation of Calmodulin. Once bound to Ca<sup>2+</sup>, 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 Ca<sup>2+</sup> 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.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Lyophilized from a 0.2 µm filtered solution of 50mM NH<sub>4</sub>HCO<sub>3</sub>, pH 8.0.  
**Storage condition :** Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.  
**Amino Acid :** MADQLTEEQIAEFKEAFSLFDKDGDTITTKELGTVMRSLGQNPTAEALQDMINEVDADGNGTIDFPEFLTMMA  
RKMKDTDSEEEIREAFRVFDKDGNGYISAAELRHVMTNLGEKLTDEEVDEMIREADIDGDGQVNYEEFVQMMT  
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### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.