

**Recombinant Human Calmodulin/CALM1 Protein**

**Cat.NO.: TP04952**

3th Edition

**Synonyms:**Calmodulin; CaM; CALM1; CALM; CAM; CAM1; CALM2; CAM2; CAMB; CALM3; CALML2; CAM3; CAMC; CAMIII

**Description:**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.

**Form:**PBS

**Molecular Weight:**16.8 kDa

**Sequences:**Met 1-Lys149

**Purity:**> 95% by HPLC

**Concentration:**

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.