

DATA SHEET

Product Name: Human Calmodulin 1

Catalog #: C-1012

Source: Recombinant. DNA sequence encoding the human Calmodulin 1 sequence was expressed in E. coli

Molecular Mass: 16,800 Da theoretical

Protein Purity: >95% by SDS-PAGE

Counter Ion: 20mM Tris-HCl, 100mM NaCl pH 7.4

Supplied As: White lyophilized powder

Resuspension: Resuspend in water at conc. of .1-1 mg/ml. Recommended to briefly centrifuge to ensure full resuspension of product.

Storage: -20°C

Description:

Calmodulin is a ubiquitous protein involved in calcium-binding that acts as a calcium sensor within several cell signaling pathways. It is involved in the control of several proteins through its calcium binding properties. Calmodulin has been implicated in several diseases such as those causing neurodegeneration. These diseases include both Batten disease and Alzheimer's Disease^{1,2}. In Alzheimer's disease, several proteins have been discovered to be calmodulin-binding such as amyloid precursor protein, APOE, beta-secretase, PP2B (calcineurin) and presenilin-1². Calmodulin 1 is a potential biomarker for Alzheimer's Disease as it's levels in the blood could identify the disease in its early stages and differentiate it from other types of neurodegenerative disorders³.

References:

1. Mathavarajah, S., et al., (2018) Cells 7(11) : 188
2. O'Day, D., et al., (2015) Journal of Alzheimer's Disease, 46(3) : 553-569
3. Esteras, N., et al., (2013) Alz Res Therapy 5, 55

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