

Calmodulin (CAM) Active Protein | CAM active protein

Active Calmodulin (CAM)

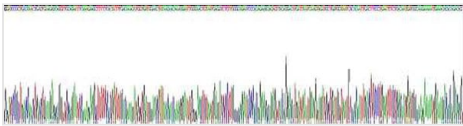
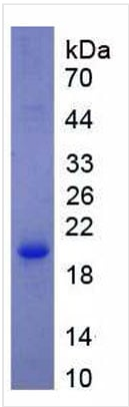
CATALOG # AAA149238	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
-------------------------------	------------------------	---	---

PRODUCT SYNONYMS

Calmodulin (CAM); Active Calmodulin (CAM); CALcium MODULated ProteIN; CAM active protein

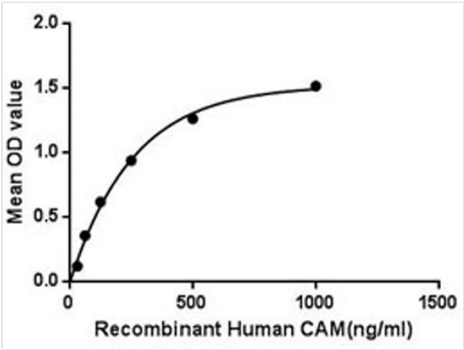
PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>92%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose .
Applicable Applications for CAM active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Ala2~Lys149
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	4.5
Usage	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



Gene Sequencing
Figure 2. Gene Sequencing (extract)

SDS_PAGE
Figure 3. SDS-PAGESample: Active recombinant CAM, Human



ADQLTEEQI AEFKEAFSLF DKDGGDTITT KELGTVMRSL GQNPTEAELQ
DMINEVDADG NGTIDFPEFL TMARKMKDT DSEEEIREAF RVFDRDNGNY
ISAAELRHVA TNLGKLTDE EVDENIREAD IDGGGQVNYE EFWQMTAK

Sequence

Bioactivity

Calmodulin (CAM) is the archetype of the family of calcium-modulated (calmodulin) proteins of which nearly 20 members have been found. Its functions include roles in growth and the cell cycle as well as in signal transduction and the synthesis and release of neurotransmitters. Calmodulin mediates the control of a large number of enzymes, ion channels, aquaporins and other proteins through calcium-binding. Among the enzymes to be stimulated by the calmodulin-calcium complex are a number of protein kinases and phosphatases. Besides, Myosin IC (MYO1C) has been identified as an interactor of CAM, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CAM and recombinant human MYO1C. Briefly, CAM were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to MYO1C-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-CAMpAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of CAM and MYO1C was shown in Figure 1, and this effect was in a dose dependent manner. Figure 1. The binding activity of CAM with MYO1C

ADDITIONAL INFORMATION

Product Categories/Family for CAM active protein	Signal transduction; Metabolic pathway; Apoptosis; Infection immunity
--	---

NCBI AND UNIPROT INFORMATION

NCBI GI #	5901912
NCBI GeneID	801
NCBI Accession #	NP_008819.1
NCBI GenBank Nucleotide #	NM_006888.6
UniProt Accession #	P0DP23

Molecular Weight	Predicted Molecular Mass: 20.4kDa Accurate Molecular Mass: 20kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	calmodulin-1 isoform 2
NCBI Official Synonym Full Names	calmodulin 1
NCBI Official Symbol	CALM1
NCBI Official Synonym Symbols	caM; CAM2; CAM3; CAMB; CAMC; CAMI; PHKD; CPVT4; DD132; LQT14; CALML2; CAMIII
NCBI Protein Information	calmodulin-1
UniProt Protein Name	Calmodulin-1
UniProt Gene Name	CALM1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/e-coli-homo-sapiens-human-active-protein/calmodulin-cam/149238>