

Supplementary Table S1: Primers used to generate the peptide variants. The primers were synthesized according to *E. coli* codon usage.

Primer pairs	Sequences (5'→3')	Goal
D/Ax2 S	GGTAACGGTACCATTGATTTCCCAG	Mutations of Asp58 to Ala and Asp60 to Ala
D/Ax2 AS	AGCAGCAGCCACTTCGTTGATCATG	
TAAE S	GGTGATGGTTaCATTACCgCCgcGGAGCTGGGTACT GTGATGCG	Mutations of Thr31Lys32 to AlaAla
TAAE AS	CGCATCACAGTACCCAGCTCCgcGGcGGTAATGtAA CCATCACC	
D1 CaM TEV S	GAGAGGATCCgagaacctgtacttccagtccATGGCGGATC AGCTCACCGACGAT	CaM cloning into PQE30 with TEV protease recognition site
D1 CaM Stop AS	GAGAGAGAGAGAGACTGCAGTCACTTACGAGCCA TAAGGTTCAAGAAC	
S-αCK2 AS-αCK2	TATggatccATGTCGGGACCCGTGCCAAGC TATctgcagTTACTGCTGAGCGCCAGCGGC	

Supplementary Figure S1: Binding thermograms of CaM peptides with calcium. CaM-WT (A), CaM1 (B) and CaM1P (C) at pH 6 and CaM-WT (D), CaM1 (E) and CaM1P (F) at pH 7.

