Design of an Allosterically Regulated Retroaldolase.

Elizabeth A. Raymond,[1] Korrie L. Mack,[1] Jennifer H. Yoon,[1] Olesia V. Moroz,[1,2] Yurii S. Moroz[1,3] and Ivan V. Korendovych[1,*]

Affiliations:

[1]Syracuse University, Department of Chemistry, 111 College Place, Syracuse, NY 13244

[2]Present affiliation: Department of Chemistry, Kyiv National Taras Shevchenko University, 64 Volodymyrska Street, Kyiv, 01601, Ukraine.

[3]Present affiliation: ChemBioCenter, Kyiv National Taras Shevchenko University, 61 Chervonotkatska Street, Kyiv 02094, Ukraine.

Corresponding author: Ivan V. Korendovych, Syracuse University, Department of Chemistry, 111 College Place, Syracuse, NY 13244, Tel: 315-443-1661, Fax: 315-443-4070, e-mail: ikorendo@syr.edu

Supplementary Information

Table S1. Protein sequences of calmodulin and its mutants.

Proteins	Sequence
cCaM	SLMKDTDSEE EIREAFRVFD KDGNGYISAA LRHVMTNLG EKLTDEEVDE MIREADIDGD GQVNYEEFVQ MMTAK
CaM	SLMADQLTEE QIAEFKEAFS LFDKDGDGTI TKELGTVMR SLGQNPTEAE LQDMINEVDA DGNGTIDFPE LTMMARKMK DTDSEEEIRE AFRVFDKDGN GYISAAELRH MTNLGEKLT DEEVDEMIRE ADIDGDGQVN YEEFVQMMTA K
CaM F92K	SLMADQLTEE QIAEFKEAFS LFDKDGDGTI TKELGTVMR SLGQNPTEAE LQDMINEVDA DGNGTIDFPE LTMMARKMK DTDSEEEIRE AFRVKDKDGN GYISAAELRH MTNLGEKLT DEEVDEMIRE ADIDGDGQVN YEEFVQMMTA K
CaM L105K	SLMADQLTEE QIAEFKEAFS LFDKDGDGTI TKELGTVMR SLGQNPTEAE LQDMINEVDA DGNGTIDFPE LTMMARKMK DTDSEEEIRE AFRVFDKDGN GYISAAEKRH MTNLGEKLT DEEVDEMIRE ADIDGDGQVN YEEFVQMMTA K
CaMWN	SLMADTDSEE EIREAFRVFD RDGNGYISAA LRIVMTNLG ENLTDEEVDE MIREADIDGD GQVNYEEFVQ MMTAL

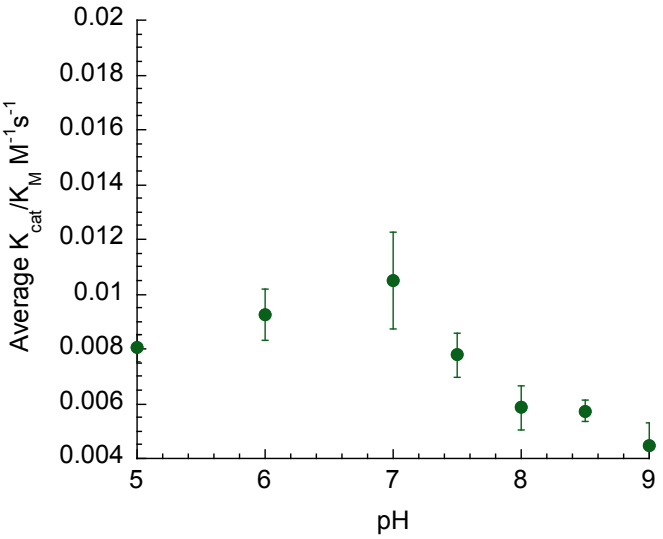

Figure S1. pH activity profile for CaM.

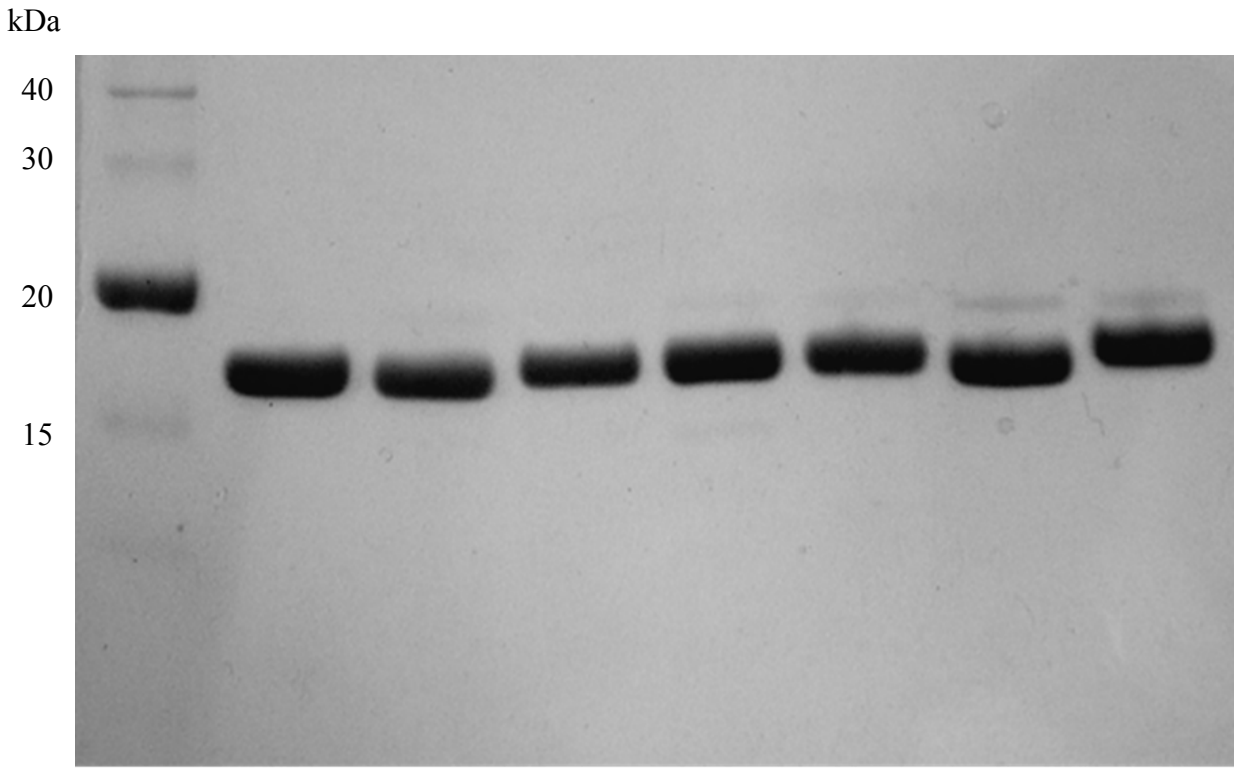

Figure S2. SDS-PAGE (10%) of purified mutants of CaM used in this study (left to right): V108K, A128K, F92K, M109K, L105K, M124K, F141K.

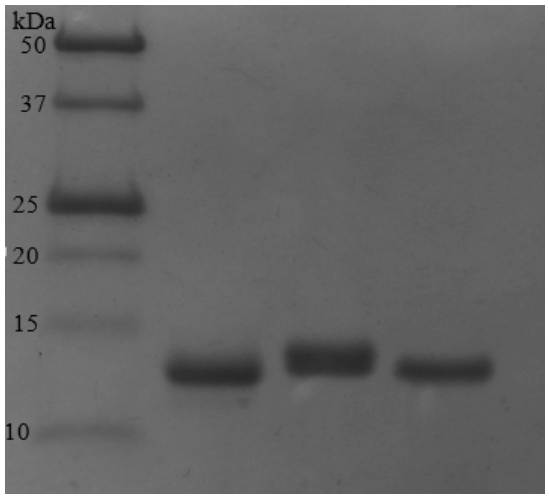

Figure S3. SDS-PAGE (10%) of purified proteins used in this study (left to right): ladder, cCaM, cCaMWN with affinity tag, cCaMWN.

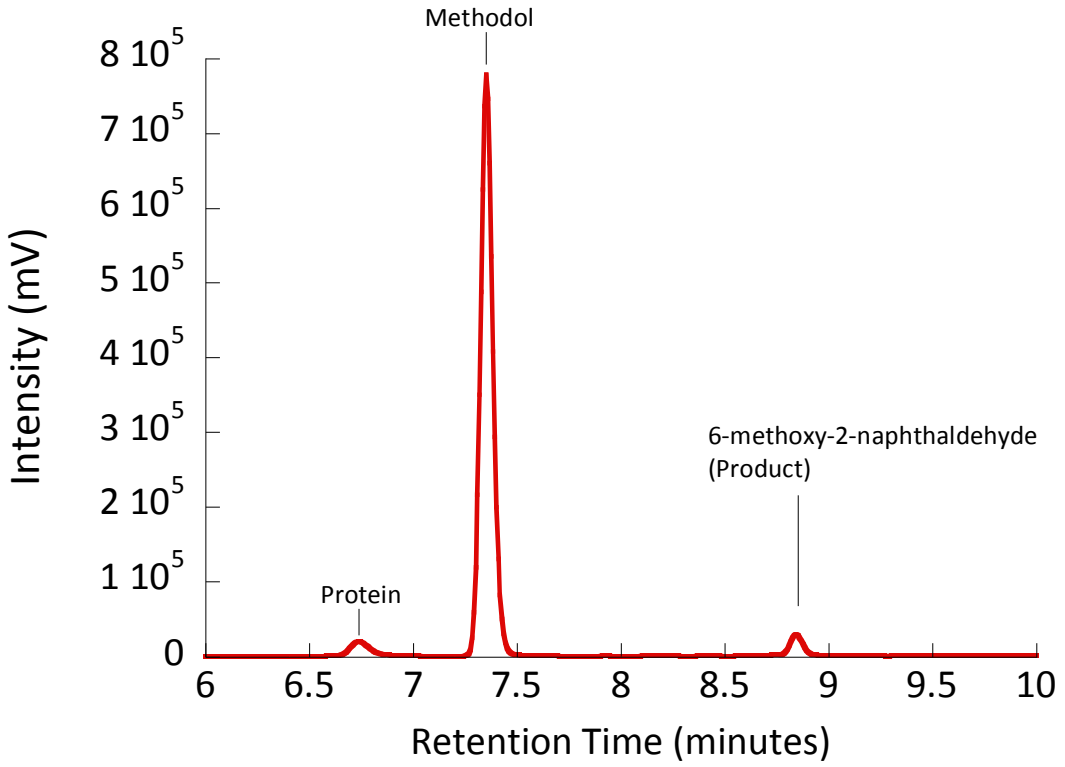

Figure S4. A representative HPLC chromatogram (at 254 nm) with elution times for the substrate and the product.