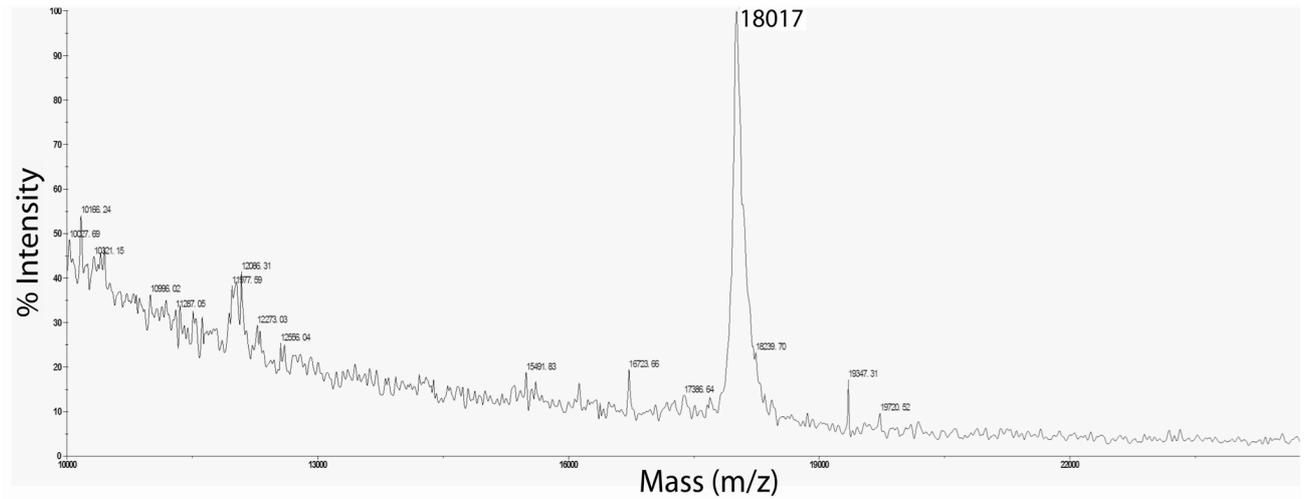
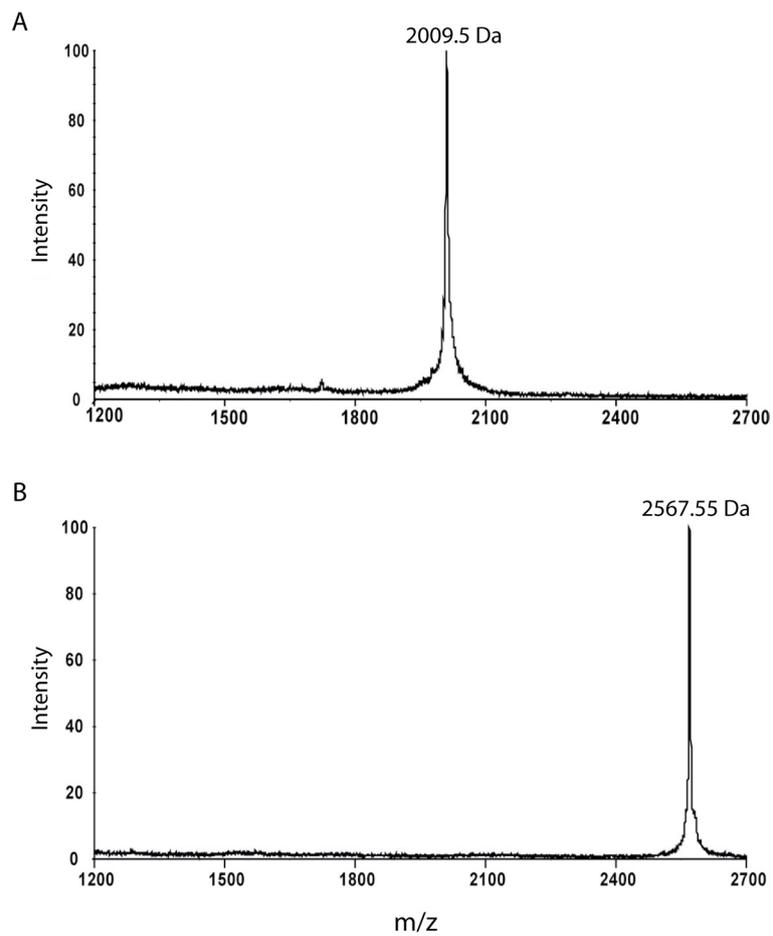


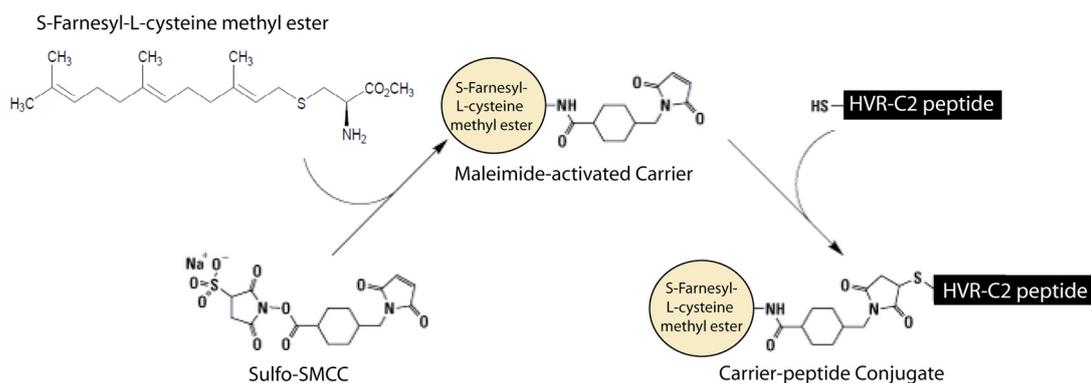
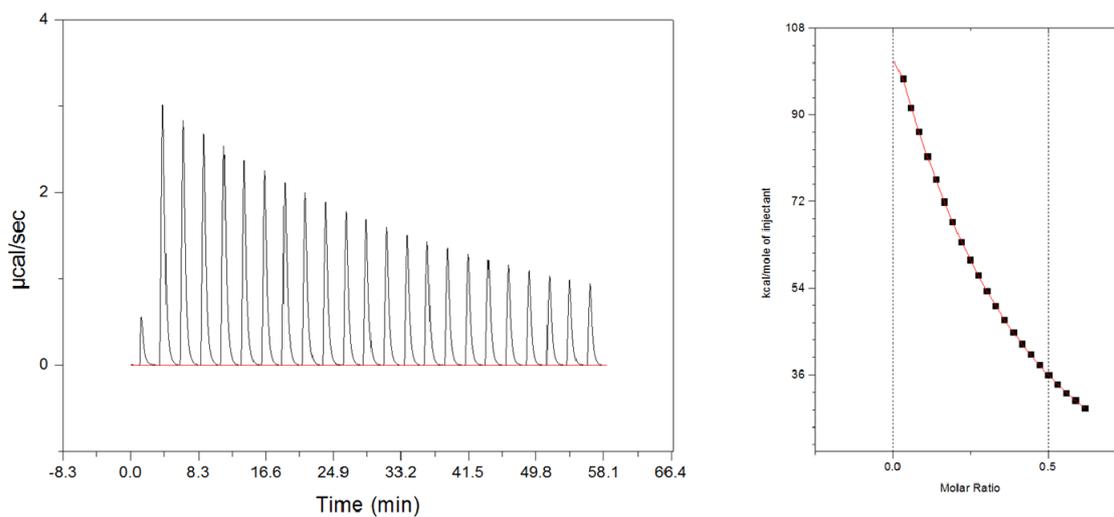
# Supplementary Materials

**Figure S1.** Mass spectrum obtained after pooling the elution fractions of purified CaM.

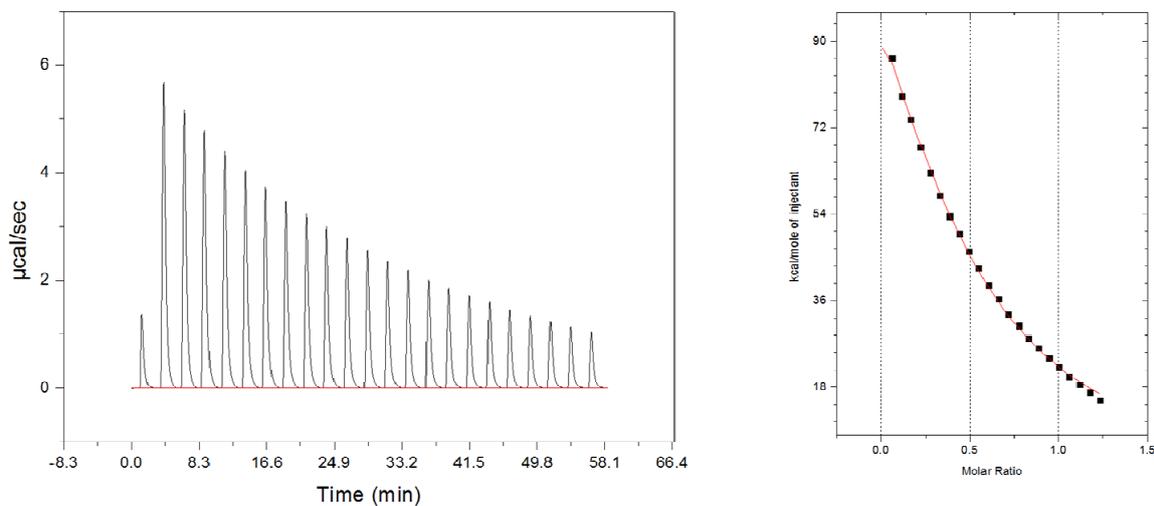


**Figure S2.** Mass spectra obtained before and after modifying the hypervariable region domain of K-Ras.

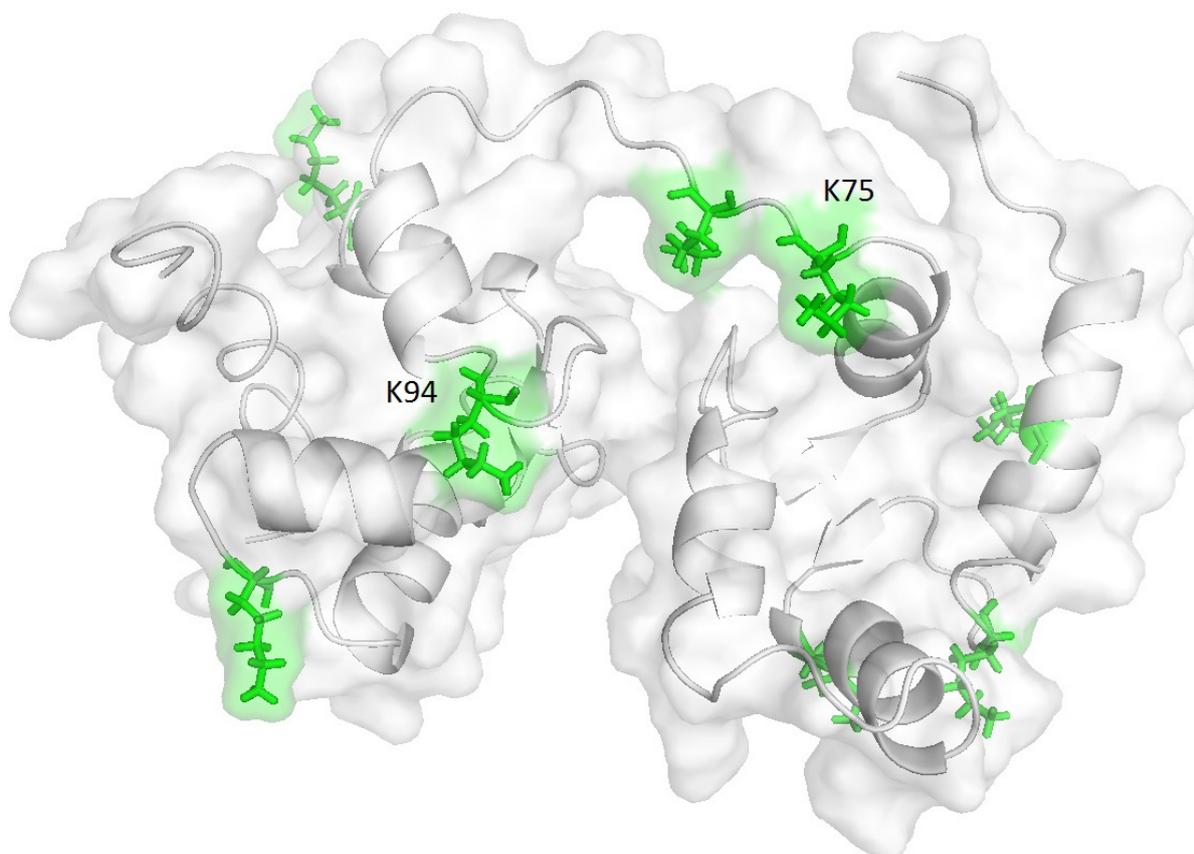


**Figure S3.** Reaction scheme for making farnesylated and methylated hypervariable region.**Figure S4.** ITC isotherm obtained upon titrating 100  $\mu\text{M}$  wild type CaM into 20  $\mu\text{M}$  FM-HVR. The dissociation constant was  $9.95 \pm 0.15 \mu\text{M}$ . The data fitting was done using one set of binding sites model.

**Figure S5.** ITC isotherm obtained upon titrating 200  $\mu\text{M}$  reductively methylated CaM into 20  $\mu\text{M}$  FM-HVR. The dissociation constant was  $9.42 \pm 0.5 \mu\text{M}$ . The data fitting was done using one set of binding sites model.



**Figure S6.** Positions of all lysines in CaM. Residues K94 and K75 are labeled accordingly (PDB: 1CFF). The NMR signals of these residues are shown closely in **Figure 5(b)** and **5(d)**, respectively.



**Figure S7.** Example fluorescence spectra obtained from different concentrations of (A) HVR and (B) FM-HVR. The legend shows the respective concentrations of the peptides used. All samples contain 2  $\mu\text{M}$  pyrene.

