Supporting Information

"An improved synthesis of TAPP: Making TAPP readily available for CaM purification"

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Comparison of TAPP Sepharose purified CaM and Phenyl Sepharose purified CaM

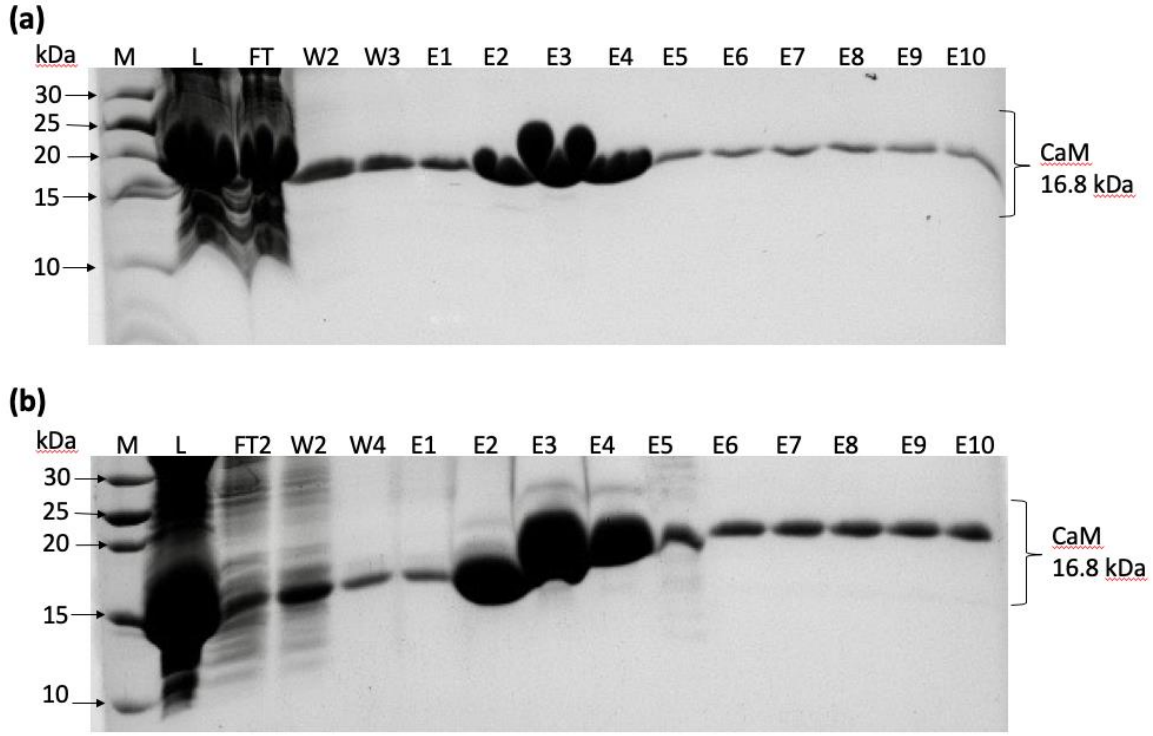

Figure S1: SDS-PAGE comparison of CaM purified with TAPP Sepharose **(a)** and CaM purified by Phenyl Sepharose **(b)**.

(a) M, Marker, annotated with the molecular weights of the standards. L, lysate from CaM expressing *E. coli*. FT, flow through of the lysate from the TAPP Sepharose resin. W1, wash 1. W3, wash 3, the last wash before beginning elutions. E1-10, elutions 1-10, respectively.

(b) M, Marker, annotated with the molecular weights of the standards. L, lysate from CaM expressing *E. coli*. FT2, flow through of the lysate from the second, calcium-loaded Phenyl Sepharose resin. W2, wash21. W4, wash 4, the last wash before beginning elutions. E1-10, elutions 1-10, respectively.

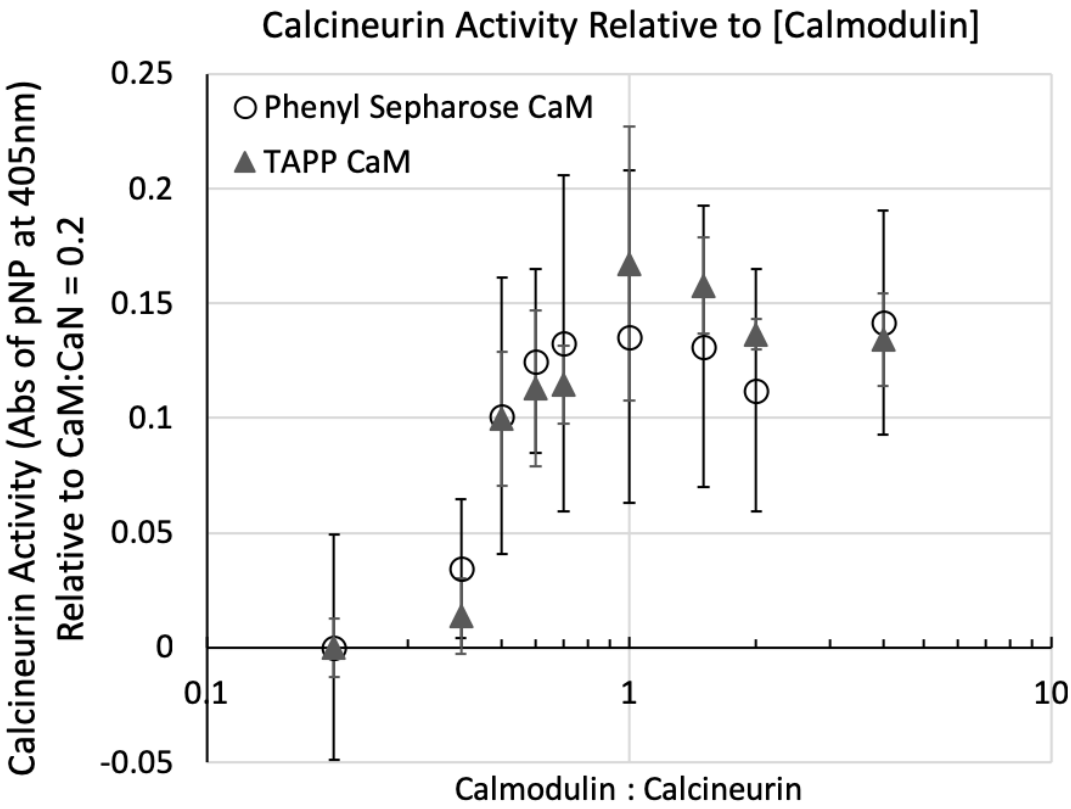

Figure S2: Comparison of CaM purified with TAPP Sepharose and CaM purified by Phenyl Sepharose in their ability to activate the phosphatase calcineurin. Activity of calcineurin with TAPP Sepharose purified CaM is shown in solid triangles, and activity of calcineurin with Phenyl Sepharose purified CaM is shown in open circles. Error bars are the standard deviation of four measurements.

NMR Spectra

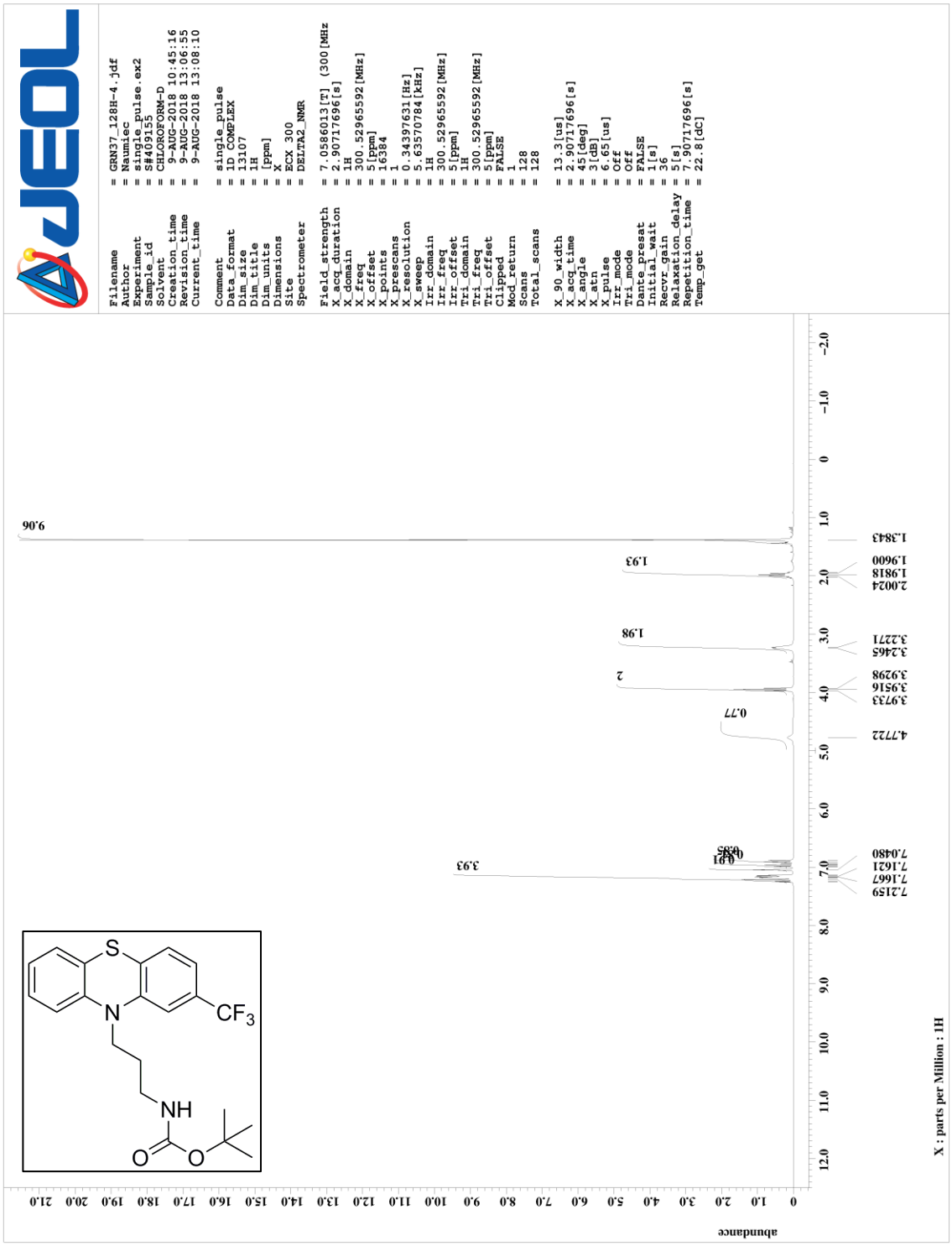

Figure S3: ^{1}H NMR spectrum of *tert*-butyl (3-(3-(trifluoromethyl)-10H-phenothiazin-10-yl)propyl)carbamate (**9**)

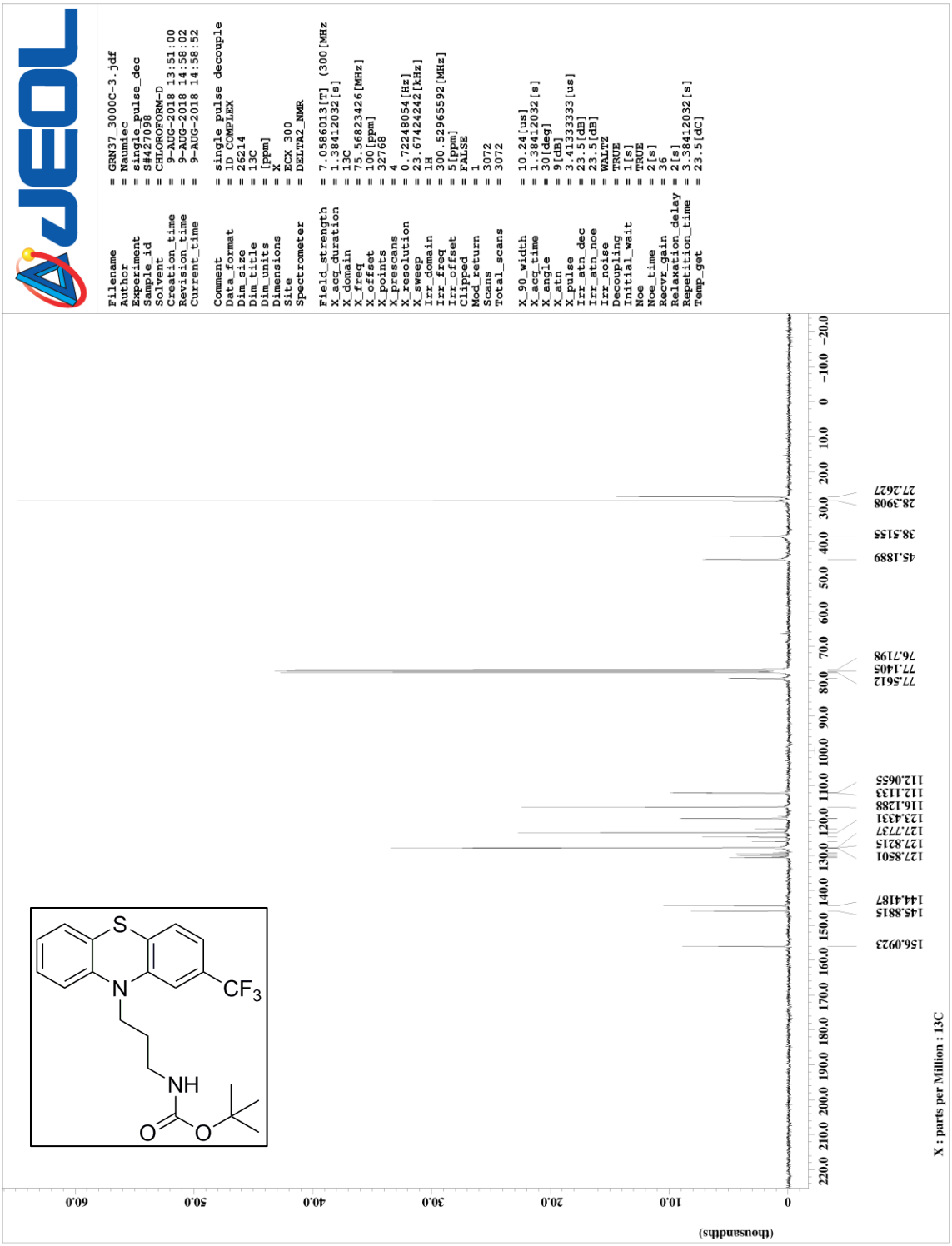

Figure S4: ^{13}C NMR spectrum of *tert*-butyl (3-(3-(trifluoromethyl)-10H-phenothiazin-10-yl)propyl)carbamate (**9**)