

Supporting information

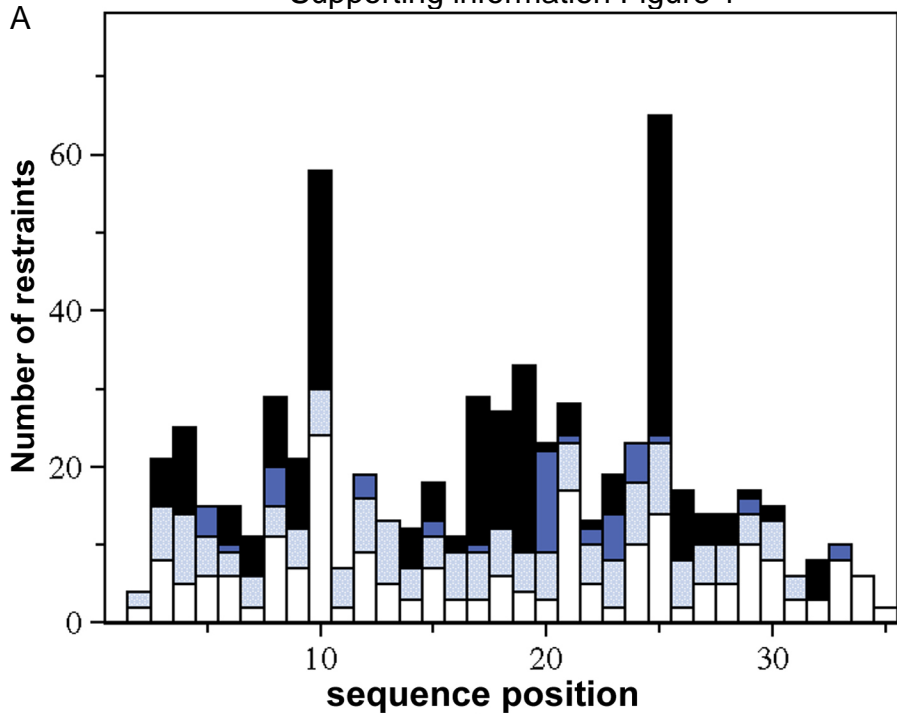
Figure 1 : nOe and RMSD distribution vs. sequence.

A, Intraresidue nOe are in dark gray. Sequential nOe are in black. Medium nOe are in light gray and long-range nOe are in white. B, RMSD values for backbone atoms and all heavy atoms are in gray and black, respectively.

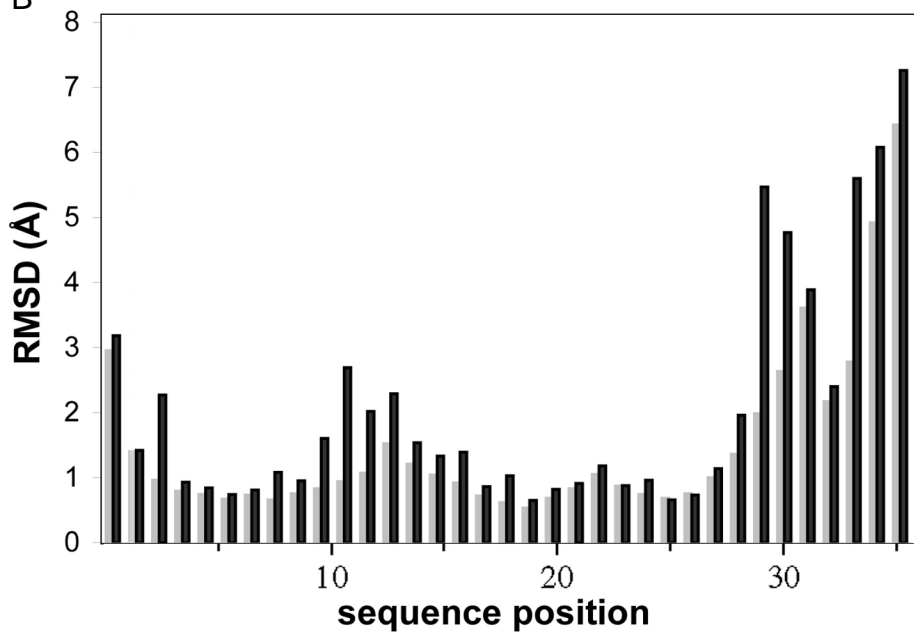
Figure 2 : Kinetics of inhibition of locust trypsin.

A, Inhibition of locust trypsin TRY1 by BPTI. A constant amount of enzyme ($E_0=35\pm5$ nM) was incubated with increasing amounts of BPTI and after addition of BApNa, the reaction was monitored at 405 nm. Fractional activity is reported versus inhibitor concentration. B, Inhibition of trypsin TRY1 by PMP-D2. Effect of increasing amounts of inhibitor on fractional activity of TRY1 ($E_0=3.6\pm0.4$ nM), using S-2222 as substrate. Under these conditions, the inhibition curve is linear, meaning that $E_0/K_i \geq 100$. C, Effect of increasing incubation time of equal amounts of enzyme TRY1 and inhibitor PMP-D2 on fractional activity a. $t_{1/2}$ was deduced to be 102 sec and K_{ass} was calculated to $2\pm1 \times 10^6 \text{ M}^{-1}\text{s}^{-1}$ using the equation $K_{ass}= 1/(E_0 \times t_{1/2})$.

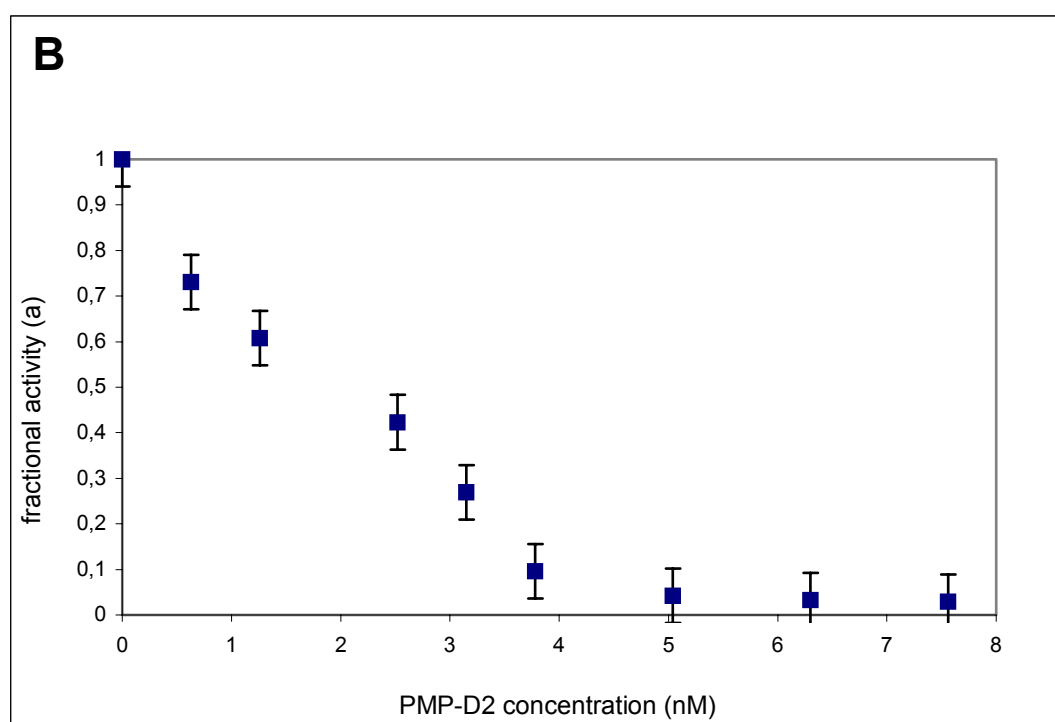
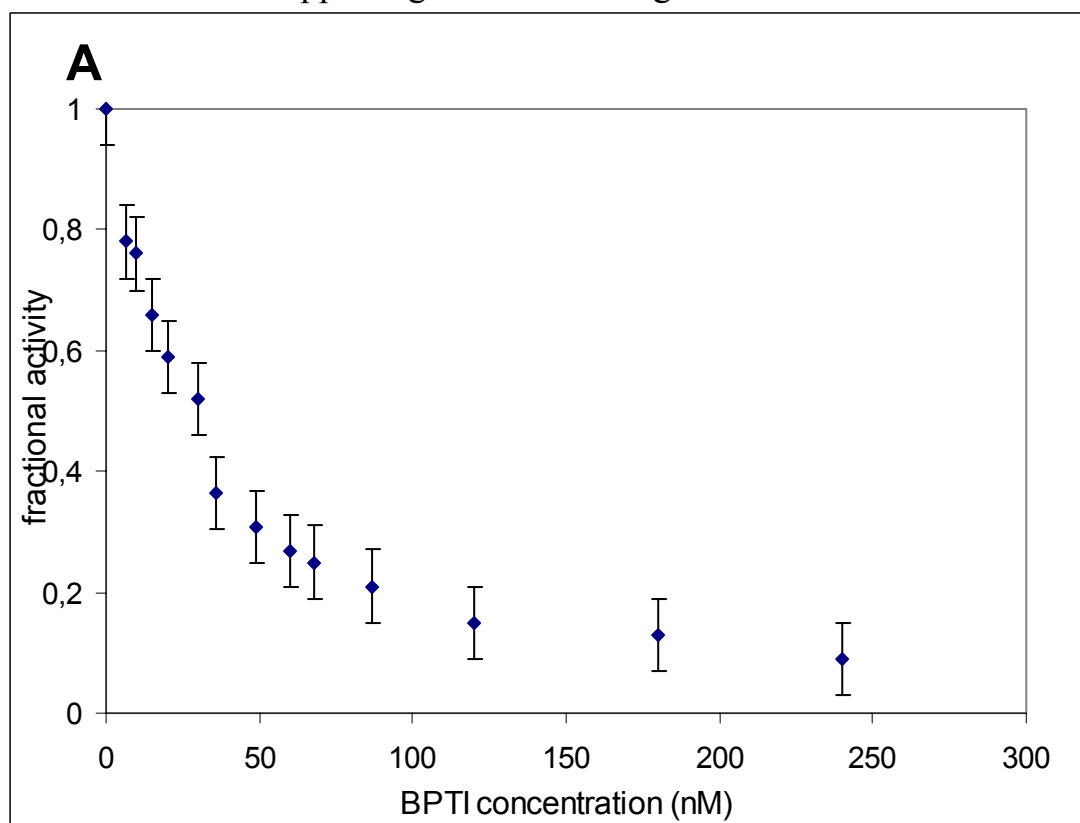
A



B



Supporting information Figure 2



C

