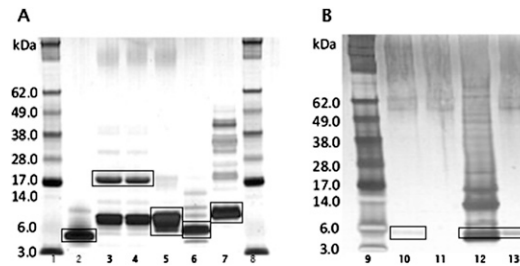


# Supporting Information

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**Fig. S1.** Impurities in commercial preparations of proteinase inhibitors (PIs). PIs (~5  $\mu$ g) were separated on 4–12% (wt/vol) NuPage Bis-Tris SDS-polyacrylamide gels (Invitrogen) and silver stained. PIs of interest are boxed. (A) SeeBlue Plus2 protein standards (Invitrogen) (1 and 8); *Nicotiana glauca* proteinase inhibitor (NaPI) (6 kDa) purified from stigmas (2) and commercial preparations of soybean trypsin inhibitor (3 and 4), Bowman-Birk soybean inhibitor (5), bovine pancreatic trypsin inhibitor (6), and lima bean trypsin inhibitor (7) were purchased from Sigma-Aldrich. (B) SeeBlue Plus2 protein standards (Invitrogen) (9) and commercial preparations of potato inhibitor I purchased from Merck (10–13; ~500 ng per lane) showing different concentrations and levels of contamination.

**Table S1. Inhibition of NaPI-resistant chymotrypsin and bovine chymotrypsin by various proteinase inhibitors**

Inhibitor	IC <sub>50</sub> ( $\mu$ M)	
	NaPI-res chymotrypsin	Bovine chymotrypsin
NaPI	>10	0.04
Chymostatin	0.004	0.004
Potato type I inhibitor	0.02	0.12
Bowman-Birk soybean proteinase inhibitor	0.24	0.06
Lima bean trypsin inhibitor	3.0	0.2
Soybean trypsin inhibitor	3.4	1.6
Phenylmethanesulfonyl fluoride	33.0	13.0
Leupeptin	140.0	2400

Comparison of the inhibitory activity of several commercially available proteinase inhibitors and NaPI against a preparation of *Helicoverpa punctigera* gut enzymes that had been enriched for the NaPI-resistant chymotrypsins (NaPI-res) and bovine chymotrypsin was used as the control enzyme.