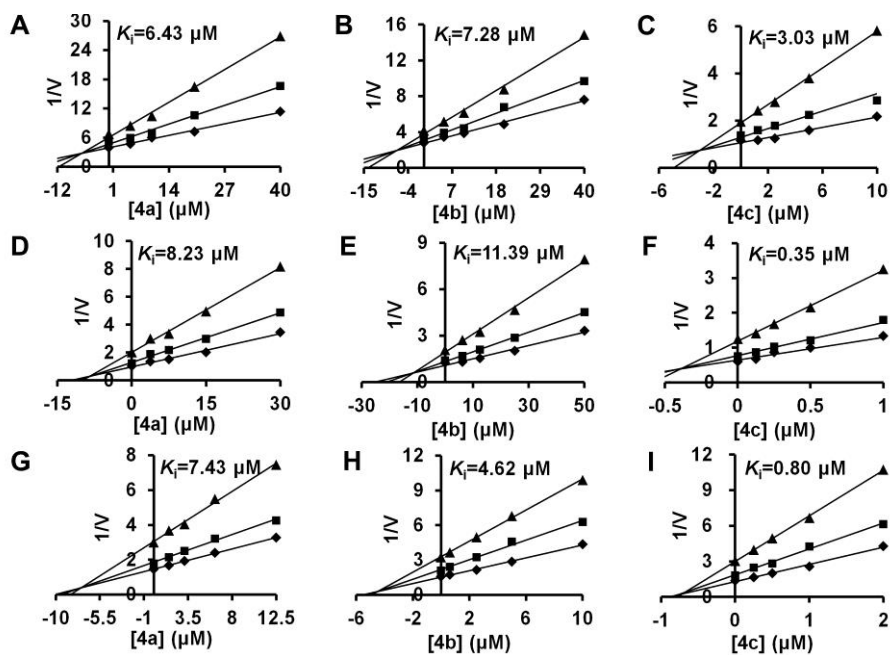
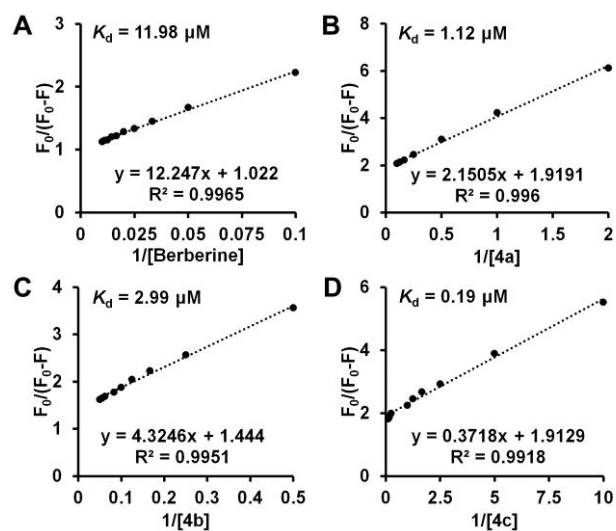


- 1 **Figure S1.** Inhibition kinetics of berberine and its analogues toward *SmChiB*. (A)
- 2 Inhibition kinetics of berberine toward *SmChiB*; (B) Inhibition kinetics of **4a** toward
- 3 *SmChiB*; (C) Inhibition kinetics of **4b** against *SmChiB*; (D) Inhibition kinetics of **4c**
- 4 against *SmChiB*.



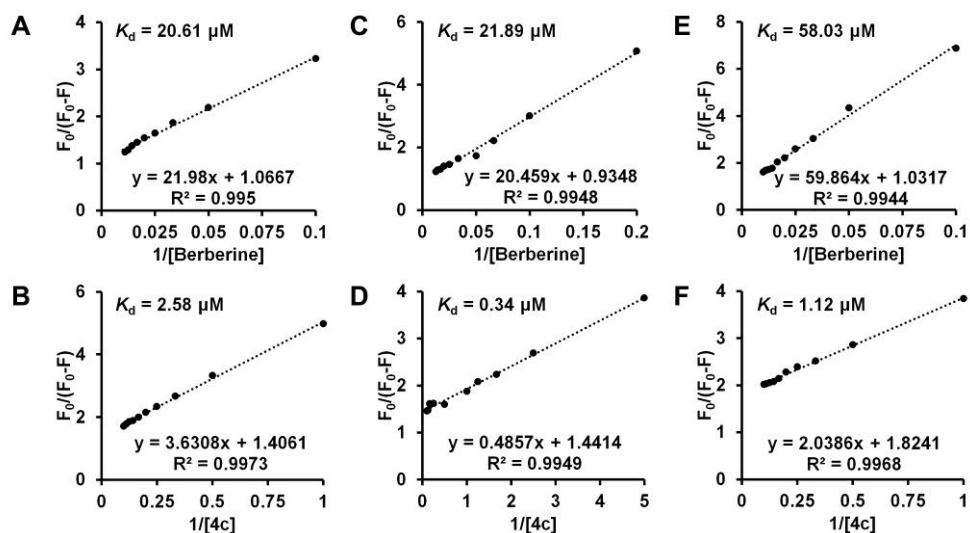
5 **Figure S2.** Inhibition kinetics of berberine analogues toward GH18 chitinases. (A), (D)  
6 and (G), inhibition kinetics of **4a** toward *OfChtI*, *HsCht*, and hAMCase; (B), (E) and  
7 (H), inhibition kinetics of **4b** toward *OfChtI*, *HsCht*, and hAMCase; (C), (F) and (I),  
8 inhibition kinetics of **4c** against *OfChtI*, *HsCht*, and hAMCase.



9 **Figure S3.** Tryptophan emission quenching of *SmChiB* by berberine and its analogues.

10 The modified Stern-Volmer plots for fluorescence quenching of *SmChiB* by berberine

11 (A), **4a** (B), **4b** (C) and **4c** (D).



12 **Figure S4.** Tryptophan emission quenching of GH18 chitinases by berberine and  
 13 analogue **4c**. (A), (C) and (E), the modified Stern-Volmer plots for fluorescence  
 14 quenching of *Of*ChtI, *Hs*Cht and hAMCase by berberine, respectively; (B), (D) and (F),  
 15 the modified Stern-Volmer plots for fluorescence quenching of *Of*ChtI, *Hs*Cht and  
 16 hAMCase by **4c**, respectively.