



**Fig. S1. Biochemical characterisation of recombinant FXII protease domains.** (A) Coomassie stained reducing SDS PAGE of purified proteins recombinant FXIIc, FXIIac and commercial  $\beta$ -FXIIa. (B) Nano-ESI mass spectrum of the FXIIc construct sprayed from 80:20 MeCN:H<sub>2</sub>O + 0.1% TFA. Samples were buffer exchanged in 50mM ammonium acetate. Protein concentrations of 100 $\mu$ M were used. The raw spectrum of all observed charge states is shown, with deconvoluted masses for each species detected is highlighted. A transformed spectrum is shown on the right with the relative abundance of the detected species. The spectrum shows two species of mass 28873 Da and 28378 Da compared to a theoretical mass of 27844 Da for FXIIc. A theoretical mass of FXIIc containing 2 GlcNAc molecules and 4 mannose molecules is 28899.0 Da and 2GlcNAc and 1 Fucose molecule is 28396.77 Da.