

## Supplementary Information

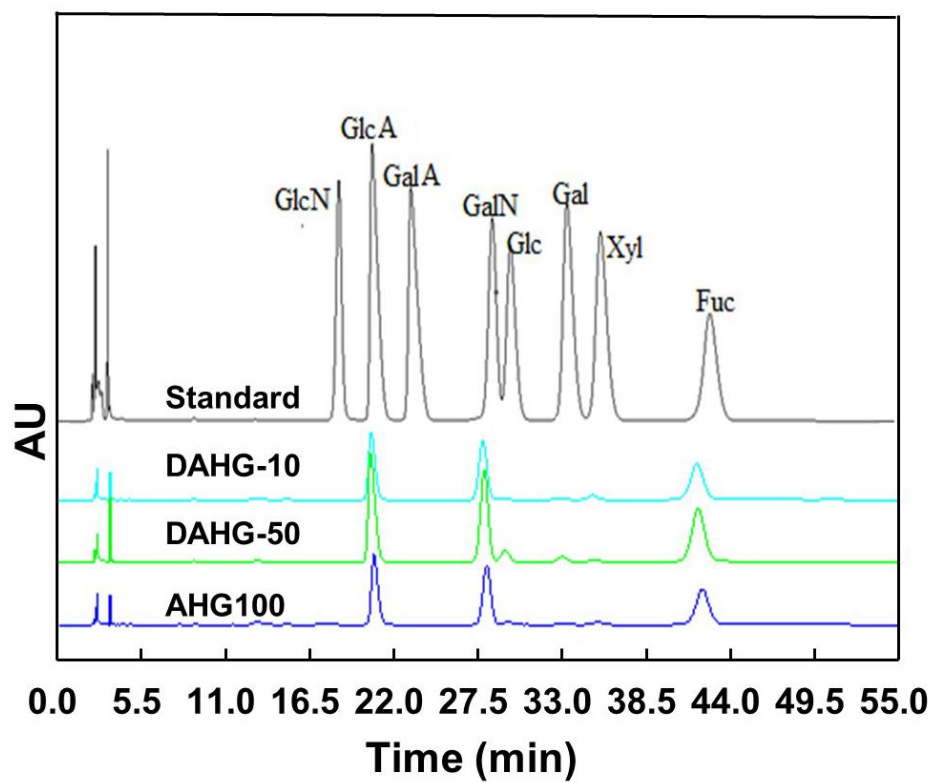
# In Vivo Anticoagulant and Antithrombic Activity of Depolymerized Glycosaminoglycan from *Apostichopus japonicus* and Dynamic Effect–Exposure Relationship in Rat Plasma

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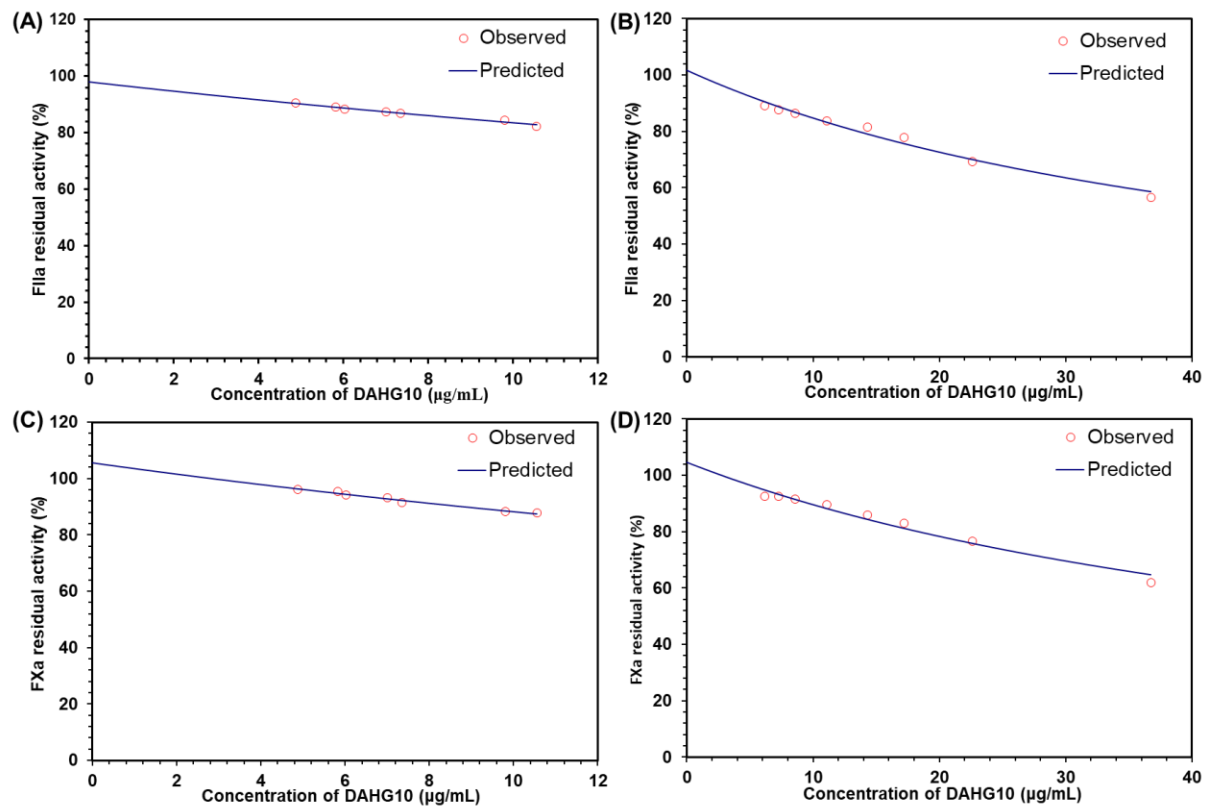


**Figure S1.** HPLC chromatography of monosaccharide composition analysis.

Note: GlcN (Nacetyl- $\beta$ -D-Glucosamine); GlcA ( $\beta$ -D-glucuronic acid); GalA ( $\beta$ -D-galacturonic acid); GalN (Nacetyl- $\beta$ -D-galactosamine); Glc (D-(+)-Glucose); Gal (D-(+)-Galactose); Xyl (D-(+)-Xylose); Fuc (L-(-)-Fucose).

**Table S1.** The PK-PD modeling parameters of residual FIIa and FXa activity fitted with  $E_{\max}$  model for DAHG10 in rats.

Parameter	Oral administration (250 mg/kg)		Intravenous injection (5 mg/kg)	
	Value (FIIa)	Value (FXa)	Value (FIIa)	Value (FXa)
$E_{\max}(\%)$	97.96	105.59	101.59	104.72
$EC_{50}(\mu\text{g/mL})$	57.59	50.75	49.98	59.40
$R_{\text{obs-pre}}$	0.99	0.99	0.99	0.99
AIC	2.56	6.22	27.73	28.65
SC	2.45	6.11	27.89	28.81



**Figure S2.** Prediction and observed mean antithrombin effect vs. time profiles for  $E_{\max}$  ( $n=4$ ). (A) residual FIIa activity of oral of DAHG10; (B) residual FIIa activity of intravenous injection of DAHG10; (C) residual FXa activity of oral of DAHG10; (D) residual FXa activity of intravenous injection of DAHG10.