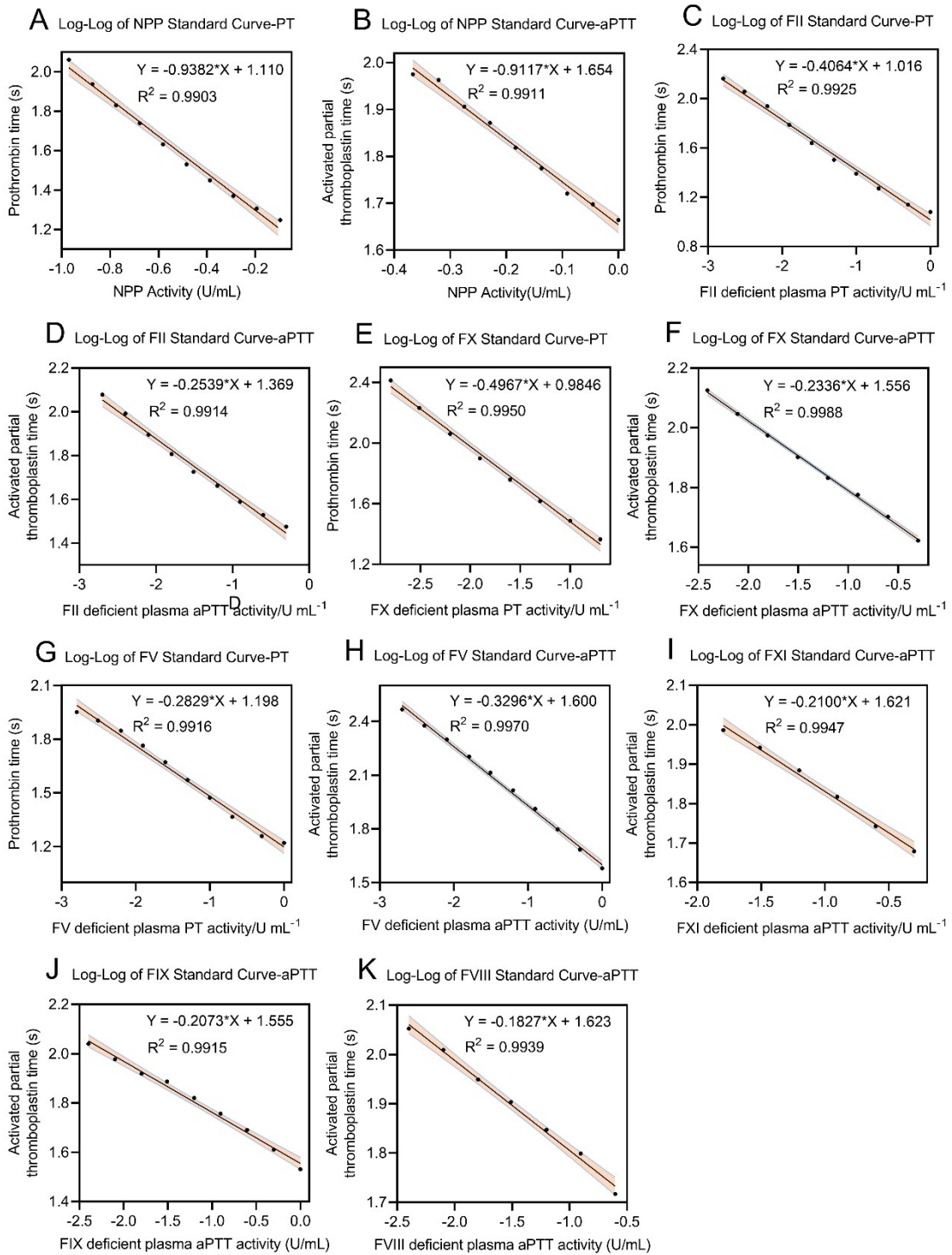
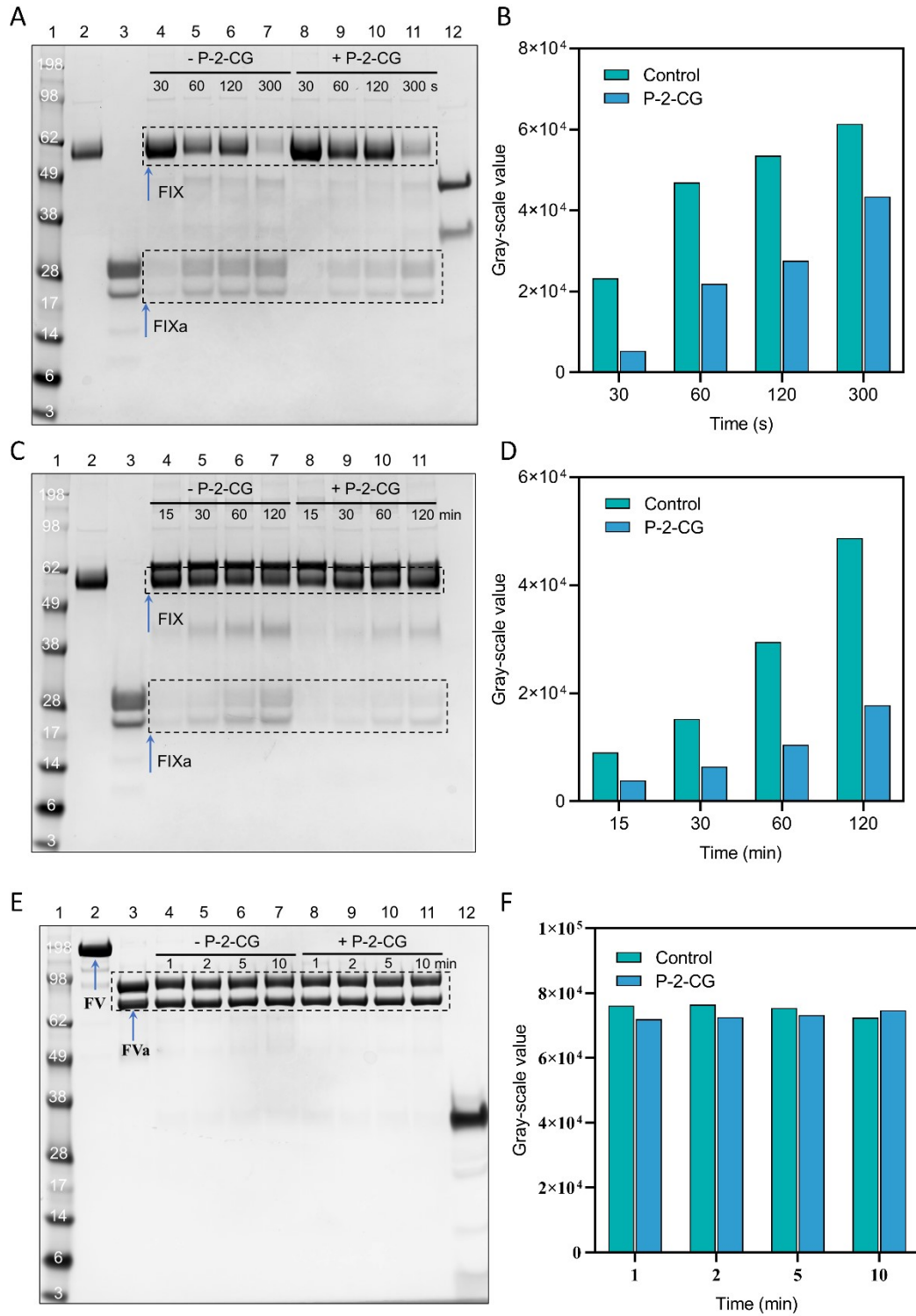


Supplementary Table 1. Characteristics of Partial Coagulation Proteins.

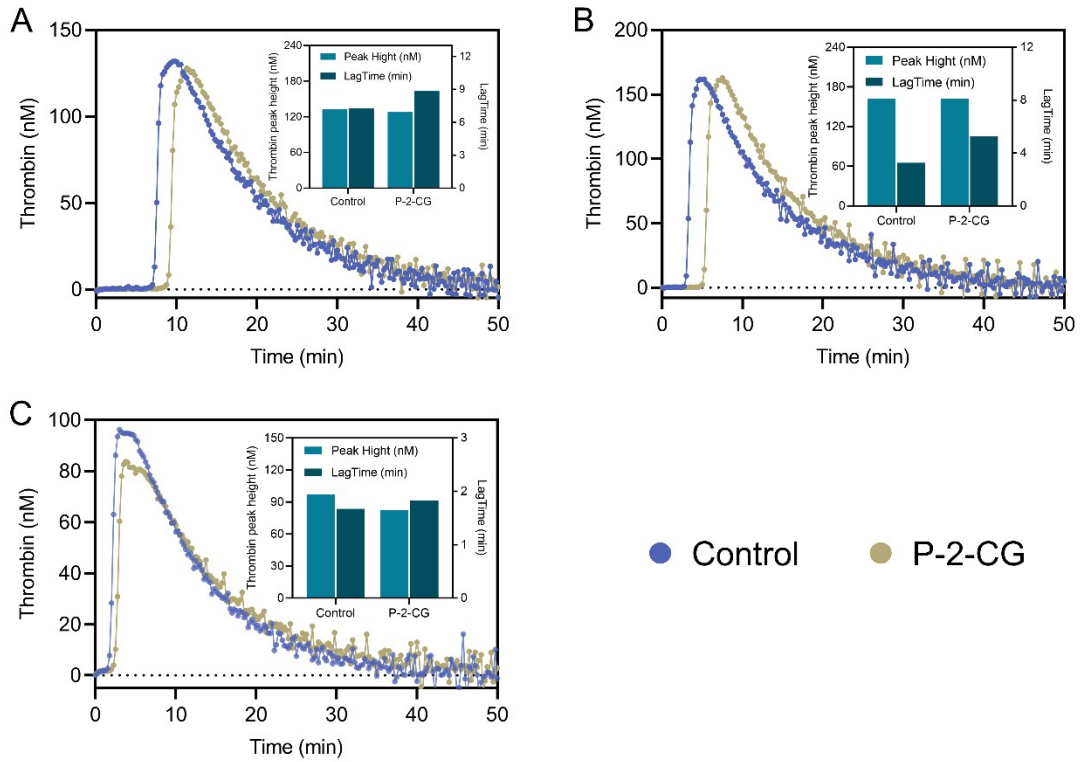
	Protein	Plasma Concentration		Mr kDa	Plasma Half-life (Hours)
		$\mu\text{g/mL}$	nmol/L		
	Prothrombin (factor II)	100	1400	72	60
	Factor VII	0.5	10	50	3-6
+Gla domain	Factor IX	5	90	55	18-24
	Factor X	10	170	59	34-40
	Protein C	4	65	62	6-8
-Gla domain	Factor XI	5	30	160	60-80
	Factor XII	40	500	80	50-70
Soluble	Factor V	5-10	20	330	12-36
Cofactor	Factor VIII	0.2	0.7	300	8-12



Supplementary Figure 1. The standard curve line of intrinsic clotting activity (activated partial thromboplastin time) and extrinsic clotting activity (thrombin time) in normal pool plasma and coagulation factor deficient plasma. The intrinsic and extrinsic clotting activity of normal pool plasma was defined as 1 U/mL. The intrinsic/extrinsic clotting activity of diluted NPP and aPTT/PT were transformed by logarithmic and plot the standard curve based on linear regression.



Supplementary Figure 2. The inhibitory ability of P-2-CG towards factor IX activation by FXIa and extrinsic tenase complex (A and B, C and D) and factor V activation by thrombin (E and F) with SDS-PAGE analysis. The grey-scale value of formed FIXa and FVa lanes were assessed with ImageJ software.



Supplementary Figure 3. The inhibitory ability of P-2-CG towards thrombin generation in factor X (A), IX (B) and II (C) deficient plasma. The intrinsic pathway trigger (FXIa 0.25 nM) was used to initiate the thrombin generation system. Thrombin peak height and thrombin generation time (LagTime) were also indicated with column figure (Inset).