Comparative characterization of polysaccharides from *Rosa roxburghii* Tratt. fruits collected from eight major producing areas of Guizhou: Structure, physicochemical properties, and *in vitro* bioactivity

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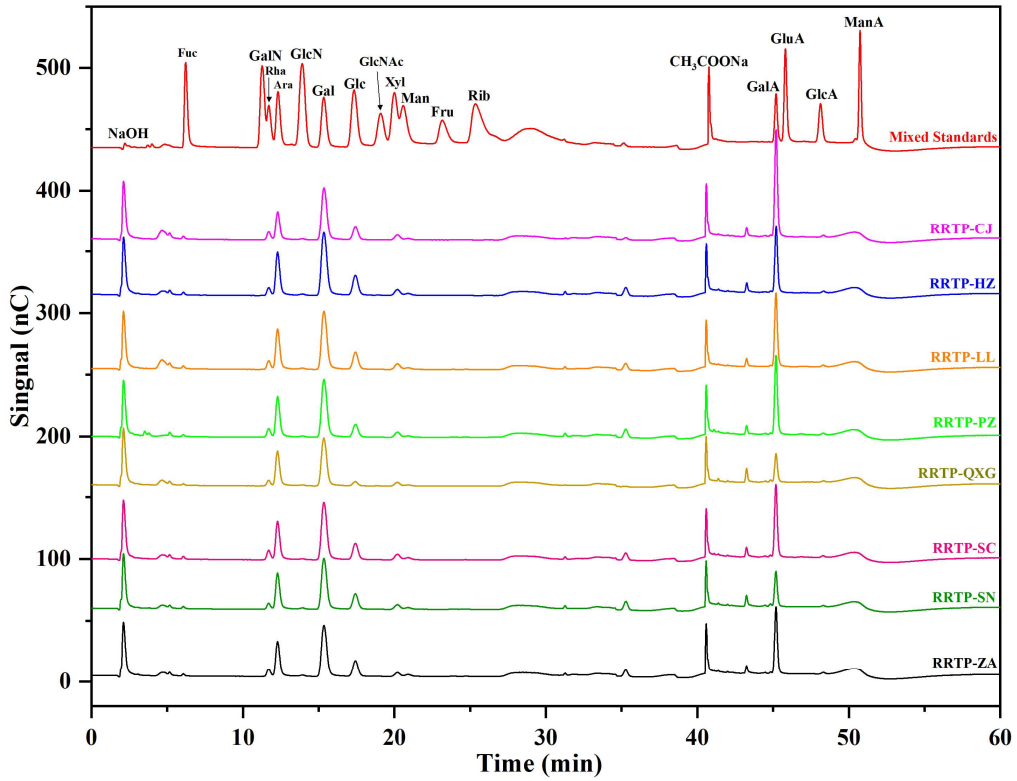

Figure S1. High-performance anion-exchange chromatography (HPAEC) separations showing the monosaccharide composition of polysaccharides from *Rosa roxburghii* Tratt. fruits (RRTP) collected in different producing areas of Guizhou Province in China.

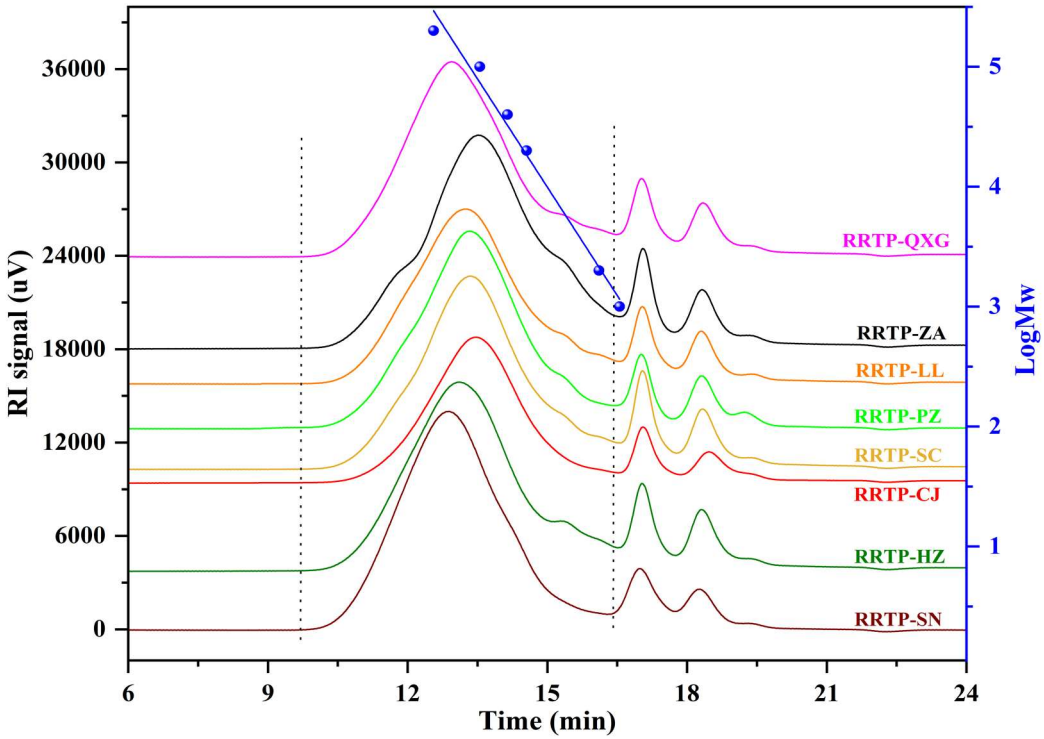

Figure S2. High-performance gel permeation chromatography (HPGPC) separations of molecular-weight standards and corresponding molecular-weight calibration curve.

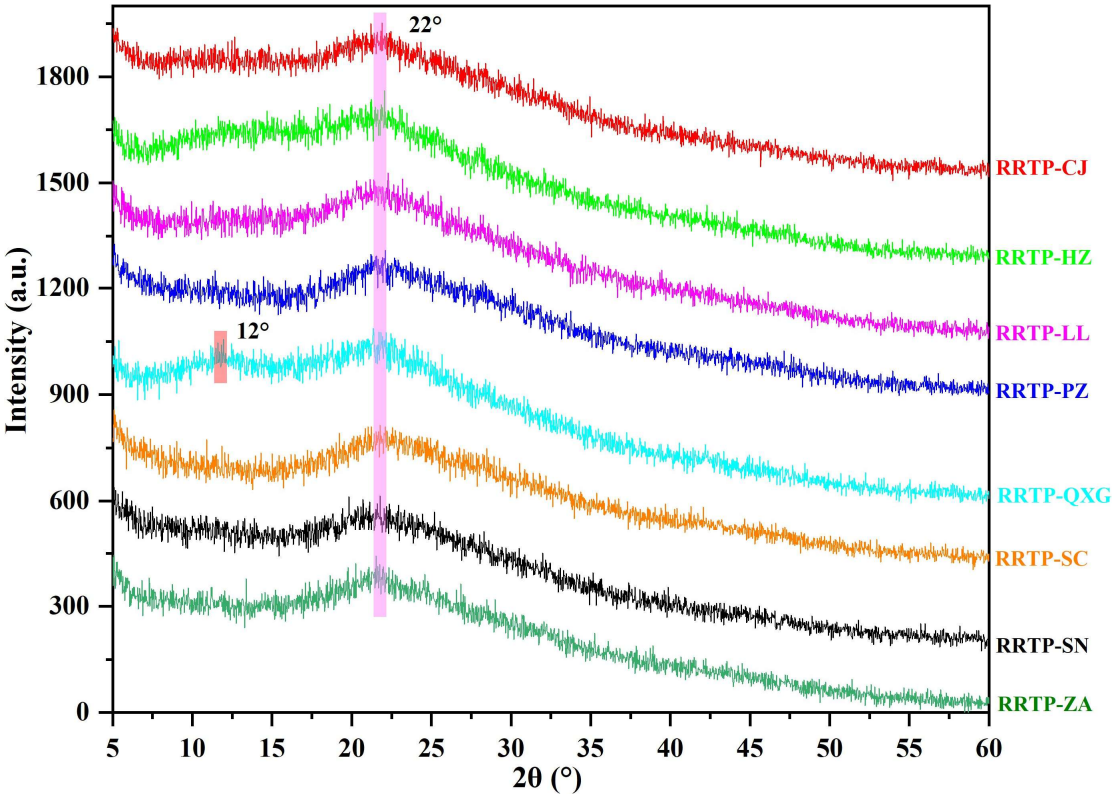

Figure S3. X-ray diffraction (XRD) patterns of polysaccharides from *Rosa roxburghii* Tratt. fruits (RRTP) collected in different producing areas of Guizhou Province in China.

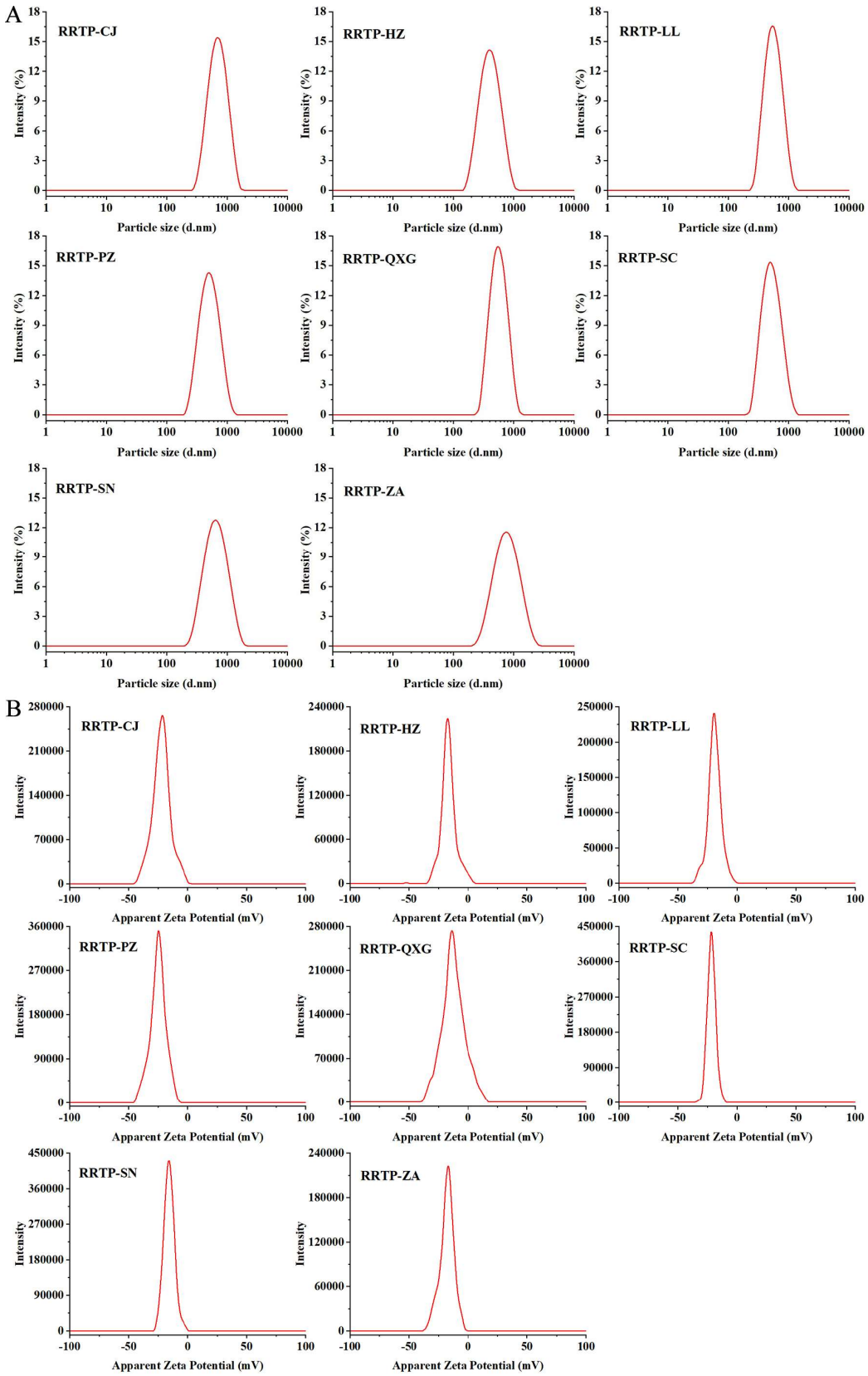

Figure S4. Colloidal properties of polysaccharides from *Rosa roxburghii* Tratt. fruits (RRTP) collected in different producing areas of Guizhou Province in China: Particle-size distribution (A) and zeta-potential distribution (B).

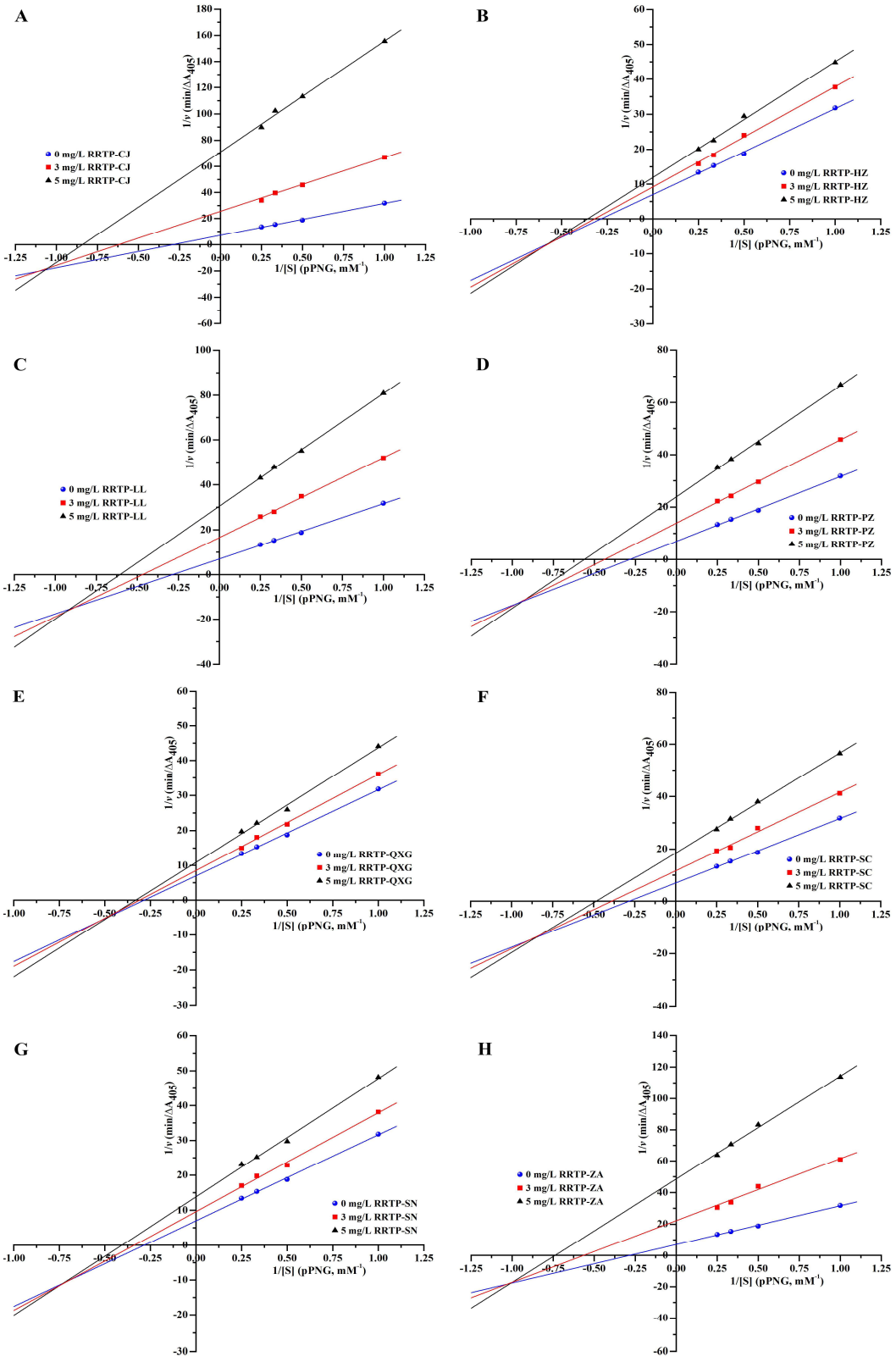

Figure S5. Lineweaver–Burk plots for α-glucosidase inhibition by polysaccharides from *Rosa roxburghii* Tratt. fruits (RRTP) collected in different producing areas of Guizhou Province in China including Congjiang,RRTP-CJ (A); Hezhang, RRTP-HZ (B); Longli, RRTP-LL (C); Panzhou, RRTP-PZ (D); Qixingguan, RRTP-QXG (E); Shuicheng, RRTP-SC (F); Sinan, RRTP-SN (G); and Zheng'an, RRTP-ZA (H).

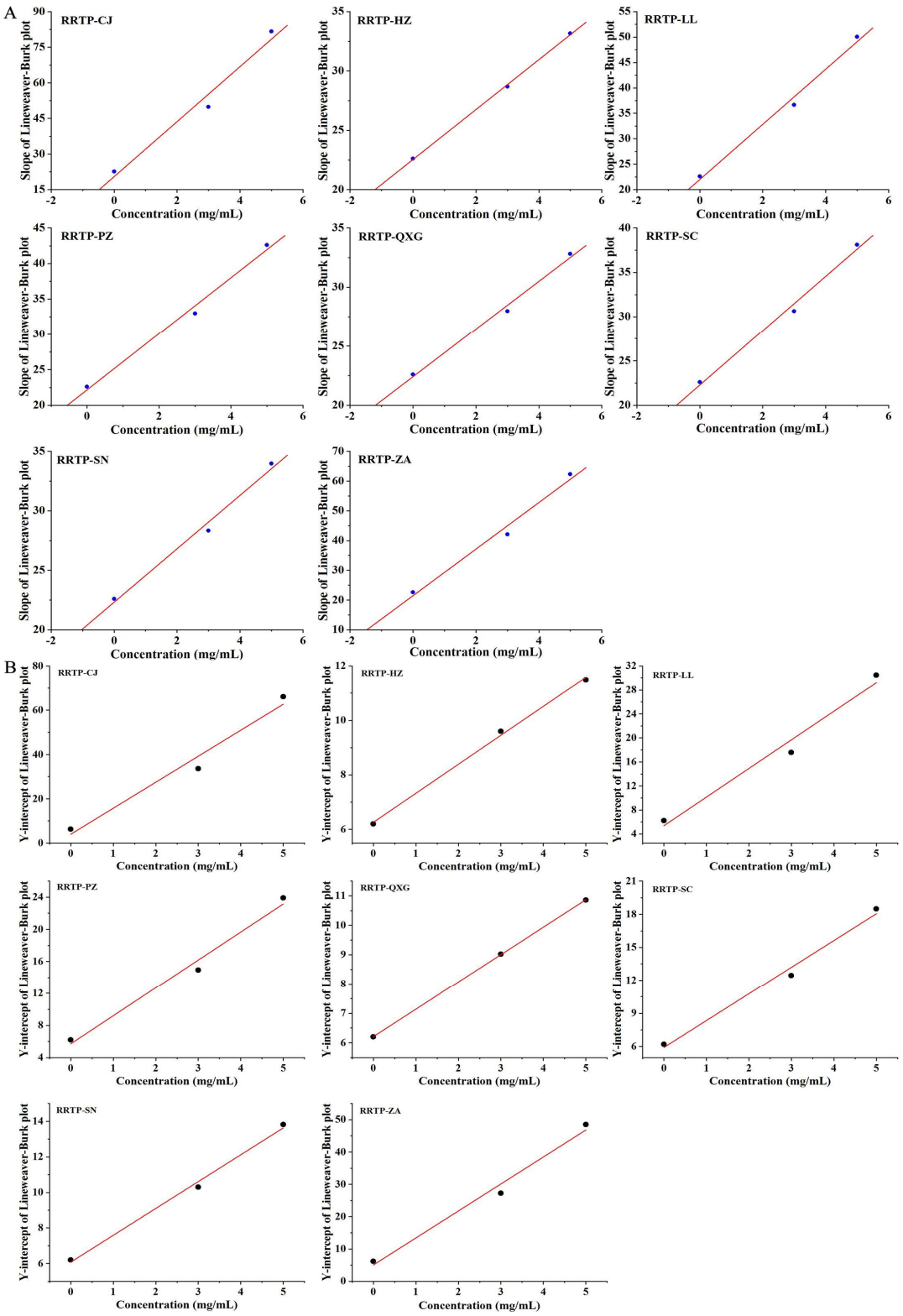

Figure S6. Secondary replots for the determination of inhibition constants: Slope versus inhibitor concentration for *Ki* determination (A) and intercept versus inhibitor concentration for *Kis* determination (B). *Ki*, dissociation constant for the enzyme-inhibitor complex; *Kis*, dissociation constant for the enzyme-inhibitor-substrate complex.