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Antioxidant and hepatoprotective effects of purified *Rhodiola rosea* polysaccharides

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Abstract

In this study, two polysaccharide fractions (RRP1: Mw=5.5 kDa, and RRP2: Mw=425.7 kDa) were isolated from *Rhodiola rosea* to investigate their antioxidation and hepatoprotective effects. Physicochemical analysis showed that RRP1 was composed of mannose, rhamnose, galacturonic acid, glucose, galactose and arabinose with a relative molar ratio of 0.69:0.11:0.15:1:0.51:7.5 and RRP2 was consisted of mannose, rhamnose, galacturonic acid, glucose, galactose and arabinose (relative molar ratio=0.15:0.19:1.01:0.18:0.47:1). Periodate oxidation and Smith degradation analysis revealed that, in RRP1, part of the arabinose and glucose residues were 1→3,6/1→3/1→2,3/1→3,4/1→2,4/1→2,3,4-linked, and the mannose, rhamnose and