

Accepted Manuscript

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PII: S0144-8617(18)30906-8
DOI: <https://doi.org/10.1016/j.carbpol.2018.08.007>
Reference: CARP 13904

To appear in:

Received date: 14-6-2018
Revised date: 3-8-2018
Accepted date: 3-8-2018

Please cite this article as: Chen W, Ma J, Gong F, Xi H, Zhan Q, Li X, Wei F, Wu H, Lai F, Two novel polysaccharides from the torus of *Saussurea laniceps* protect against AAPH-induced oxidative damage in human erythrocytes, *Carbohydrate Polymers* (2018), <https://doi.org/10.1016/j.carbpol.2018.08.007>

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Two novel polysaccharides from the torus of *Saussurea laniceps* protect against AAPH-induced oxidative damage in human erythrocytes

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Highlights

- Two novel polysaccharides (SLT-3, SLT-4), were extracted from *Saussurea laniceps*.
- The study confirms the presence of acidic polysaccharides in *Saussurea laniceps*.
- SLT-3 and SLT-4 exhibited noticeable antioxidant ability.
- The damage to erythrocyte membrane structure was alleviated by SLT-3 and SLT-4.

ABSTRACT

Two major polysaccharides (SLT-3, SLT-4) were isolated from the torus of *Saussurea laniceps*. Their molecular weight, monosaccharide compositions and the ability to protect human erythrocytes from oxidative damage induced by AAPH were assessed. Results showed that the Mw of SLT-3 and SLT-4 were 10113 Da and 12392 Da. SLT-3 was composed of mannose, rhamnose, glucuronic acid, galacturonic acid, glucose, galactose, xylose, and arabinose in a molar ratio of 0.25:0.53:0.19:15.35:0.51:1.10:0.63:1.73, whereas SLT-4 was composed of mannose, rhamnose, glucuronic acid, galacturonic acid, glucose, galactose, and arabinose in a

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