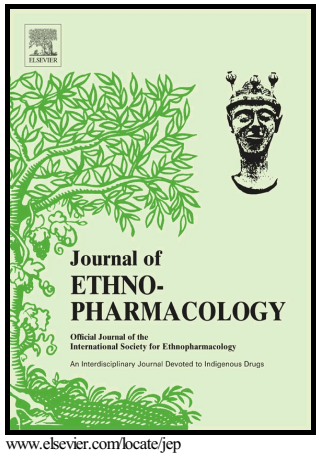

www.elsevier.com/locate/jep

Lycium europaeum Linn as a source of polysaccharide with *in vitro* antioxidant activities and *in vivo* anti-inflammatory and hepato-nephroprotective potentials

Ilhem Rjeibi, Anouar Feriani, Anouar Ben Saad, Sana Ncib, Jazia Sdayria, Najla Hfaiedh, Mohamed Salah Allagui

PII: S0378-8741(18)30826-2
DOI: https://doi.org/10.1016/j.jep.2018.06.036
Reference: JEP11425

To appear in: *Journal of Ethnopharmacology*

Received date: 6 March 2018
Revised date: 20 June 2018
Accepted date: 25 June 2018

Cite this article as: Ilhem Rjeibi, Anouar Feriani, Anouar Ben Saad, Sana Ncib, Jazia Sdayria, Najla Hfaiedh and Mohamed Salah Allagui, *Lycium europaeum* Linn as a source of polysaccharide with *in vitro* antioxidant activities and *in vivo* anti-inflammatory and hepato-nephroprotective potentials, *Journal of Ethnopharmacology,* https://doi.org/10.1016/j.jep.2018.06.036

Lycium europaeum Linn as a source of polysaccharide with *in vitro* antioxidant activities and *in vivo* anti-inflammatory and hepato-nephroprotective potentials

Ilhem Rjeibi[1*], Anouar Feriani[1], Anouar Ben Saad[1], Sana Ncib[2], Jazia Sdayria[1], Najla Hfaiedh[1], Mohamed Salah Allagui[3]

[1]Research unit of Macromolecular Biochemistry and Genetic, Faculty of Sciences of Gafsa, 2112 Gafsa, Tunisia.

[2]Common Services Unit for Research, Faculty of Sciences of Gafsa, 2112 Gafsa, Tunisia.

[3]Laboratory of Animal Ecophysiology, Faculty of Science of Sfax, 3018 Sfax, Tunisia

[*]Corresponding author. Ilhem Rjeibi Address: Research unit of Macromolecular Biochemistry and Genetic, Faculty of Sciences of Gafsa, 2112 Gafsa, Tunisia Tel.: +21620480884. rjeibii@yahoo.fr

ABSTRACT

ETHNOPHARMACOLOGICAL RELEVANCE

Lycium europaeum Linn. is widely used to treat the burning of the skin and recognized as a medicinal plant having various biological activities**.**

AIMS OF THE STUDY

The purpose of the present study is to characterize the polysaccharide from *L. europaeum* L. leaves (LEP) and to explore its antioxidant, anti-inflammatory and hepato-nephroprotective properties.

MATERIALS AND METHODS

The structural and functional characteristics of LEP were investigated using X-ray diffraction techniques (XRD), Scanning Electron Microscopy (SEM), and FT-IR Spectroscopy. The antioxidant activity was evaluated using 2,2-diphenyl-1-picrylhydrazyl and hydrogen peroxide scavenging assays. Hepato-renal effects were studied using CCl_4 and cisplatin-induced liver and