

external link (opens in a new window)

Search Sources Analytics Alerts My list Settings Live Chat Help Tutorials

Quick Search

Search

Back to results | < Previous 129 of 186 Next >

[Link to Full Text](#) | [Download](#) [Export](#) [Print](#) [E-mail](#) [Create bibliography](#) [Add to My List](#)

Pharmacologyonline

Volume 1, 2007, Pages 299-303

Evaluation of leishmanicidal effect of *Perovskia abrotanoides* Karel. Root extract by in vitro leishmanicidal assay using promastigotes of *Leishmania major*

Jaafari, M.R.^a, Hooshmand, S.^b, Samiei, A.^a, Hossainzadeh, H.^b^a School of Pharmacy, Biotechnology Research Center, Mashhad University of Medical Sciences, P.O. Box 91775-1365, Mashhad, Iran^b School of Pharmacy, Pharmaceutical Research Center, Mashhad University of Medical Sciences, P.O. Box 91775-1365, Mashhad, Iran

Abstract

[View references \(13\)](#)

P. abrotanoides dried root has been successfully used for the treatment of Cutaneous leishmaniasis in Iranian traditional medicine as a poultice. To provide a scientific reason for ethnomedicinal use of *P. abrotanoides*, in this study the leishmanicidal effect of *Perovskia abrotanoides* extracts was evaluated on promastigotes of *L. major* in vitro. In this study, the antileishmanicidal effect of different extract of *Perovskia abrotanoides* root was evaluated on the promastigotes of *Leishmania major* in vitro. The dried and ground root of the plant was extracted using either maceration in 80% ethanol or Soxhlet in methanol. Then, 5 different concentrations (0.06, 0.12, 0.25, 0.5 and 1 mg/ml) of each extract, one positive control (**Amphotericin B**, 0.5 mg/ml), one negative control (culture medium), and one solvent control (DMSO) were prepared and were placed in a 24-well plates containing 50,000 parasites/ well. The plates were incubated at 25°C for six days and the number of parasites in each well was determined on days 2, 4, and 6 of experiment microscopically using Neubauer chamber. It was observed that **amphotericin B** and both macerated and Soxhlet extracts at concentration of 1 mg/ml killed all the parasites. Lower doses exhibited a dose-dependent antileishmanial activity. The average of IC₅₀ for macerated extract in DMSO was 4.03 × 10⁻² mg/ml and for Soxhlet extract in DMSO was 7.33 × 10⁻² mg/ml. The control solvents had no significant effect on the *L. major* promastigotes. These results indicated that both macerated and Soxhlet extracts of *Perovskia abrotanoides* have favorable leishmanicidal activity.

Reaxys Database Information

|

Author keywords

Antileshamanicidal activity; Cutaneous leishmaniasis; *Leishmania major*; *Perovskia abrotanoides*

Indexed Keywords

EMTREE drug terms: alcohol; **amphotericin B**; dimethyl sulfoxide; methanol; *Perovskia abrotanoides* extract; plant extract; solvent; unclassified drugEMTREE medical terms: antiprotozoal activity; article; concentration response; controlled study; culture medium; drug determination; IC 50; in vitro study; incubation temperature; incubation time; *Leishmania major*; nonhuman; plant root; promastigote; skin leishmaniasis; Soxhlet extraction; traditional medicineChemicals and CAS Registry Numbers: alcohol, 64-17-5; **amphotericin B**, 1397-89-3, 30652-87-0; dimethyl sulfoxide, 67-68-5; methanol, 67-56-1

ISSN: 18278620 Source Type: Journal Original language: English Document Type: Article

Cited by since 1996

This article has been cited **4 times** in Scopus: (Showing the 2 most recent)

Beikmohammadi, M.
The evaluation of medicinal properties of perovskia abrotanoides Karel
(2012) *Middle East Journal of Scientific Research*

Hadizadeh, F., Jaafari, M.R., Samiei, A.
Synthesis and in vitro leishmanicidal effects of conformationally restricted analogues of pentamidine
(2009) *Iranian Journal of Pharmaceutical Research*

[View details of all 4 citations](#)

Inform me when this document is cited in Scopus:

[Set alert](#) | [Set feed](#)

Related documents

Showing the 2 most relevant related documents by all shared references:

Arabi, F., Moharrampour, S., Sefidkon, F.
Chemical composition and insecticidal activity of essential oil from *Perovskia abrotanoides* (Lamiaceae) against *Sitophilus oryzae* (Coleoptera: Curculionidae) and *Tribolium castaneum* (Coleoptera: Tenebrionidae)
(2008) *International Journal of Tropical Insect Science*

Beikmohammadi, M.
The evaluation of medicinal properties of perovskia abrotanoides Karel
(2012) *Middle East Journal of Scientific Research*

[View all related documents based on all shared references or select the shared references to use](#)

Find more related documents in Scopus based on:

[Authors](#) | [Keywords](#)

Lipid Structures (beta)

1 Instances found

Amphotericin B[Show Details](#) [Show Occurrences - 2](#)Powered by LIPID MAPS | [About this application](#)

More By These Authors

The authors of this article have a total of **61 records** in Scopus: (Showing 5 most recent)

Alavizadeh, S.H., Badiee, A., Khamesipour, A., Jalali, S.A., Firouzmand, H., Abbasi, A., Jaafari, M.R.

The role of liposome-protamine-DNA nanoparticles containing CpG oligodeoxynucleotides in the course of infection induced by *Leishmania major* in BALB/c mice
(2012) *Experimental Parasitology*

Bavarsad, N., Fazly Bazzaz, B.S., Khamesipour, A., Jaafari, M.R.

Colloidal, in vitro and in vivo anti-leishmanial properties

[Add apps](#) | [Help](#)[View in table layout](#)