Activity of ascaridol from the anthelmintic herb Chenopodium anthelminticum L. against sensitive and multidrug-resistant tumor cells.


Source

Virtual Campus Rhineland-Palatinate, Saac Fulda-Allee 3, 55124 Mainz, Germany. efferth@vcrp.de

Abstract

Ascaridol is the active principle of the American wormseed Chenopodium anthelminticum L. We isolated ascaridol from a commercial preparation of Chenopodium oil and analyzed its activity against different tumor cell lines in vitro (CCRF-CEM, HL60, MDA-MB-231). Multidrug-resistant (MDR) counterparts of these cell lines express differentially the MDR-conferring ATP-binding cassette transporter genes MDR1, MRP1 and BCRP, respectively. We found that ascaridol exerts antineoplastic activity. The findings of the present investigation are the first hint that ascaridol may be an interesting novel candidate drug for cancer treatment.

PMID:12553060