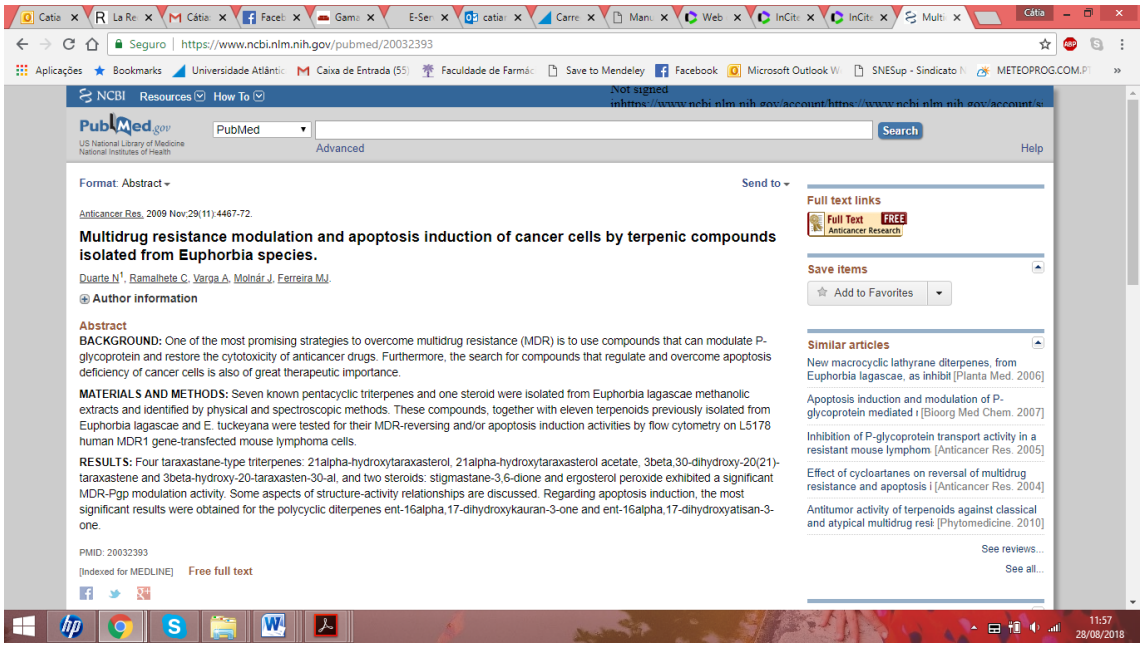
Seguro | https://www.ncbi.nlm.nih.gov/pubmed/20032393
NCBI Resources How To
PubMed.gov
US National Library of Medicine National Institutes of Health
PubMed
Search
Advanced
Help
Format: Abstract
Send to
Anticancer Res. 2009 Nov;29(11):4467-72.
Multidrug resistance modulation and apoptosis induction of cancer cells by terpenic compounds isolated from Euphorbia species.
Duarte N[1], Ramalhete C, Varga A, Molnár J, Ferreira MJ.
Author information
Abstract
BACKGROUND: One of the most promising strategies to overcome multidrug resistance (MDR) is to use compounds that can modulate P-glycoprotein and restore the cytotoxicity of anticancer drugs. Furthermore, the search for compounds that regulate and overcome apoptosis deficiency of cancer cells is also of great therapeutic importance.
MATERIALS AND METHODS: Seven known pentacyclic triterpenes and one steroid were isolated from Euphorbia lagascae methanolic extracts and identified by physical and spectroscopic methods. These compounds, together with eleven terpenoids previously isolated from Euphorbia lagascae and E. tuckeyana were tested for their MDR-reversing and/or apoptosis induction activities by flow cytometry on L5178 human MDR1 gene-transfected mouse lymphoma cells.
RESULTS: Four taraxastane-type triterpenes: 21alpha-hydroxytaraxasterol, 21alpha-hydroxytaraxasterol acetate, 3beta,30-dihydroxy-20(21)-taraxastene and 3beta-hydroxy-20-taraxasten-30-al, and two steroids: stigmastane-3,6-dione and ergosterol peroxide exhibited a significant MDR-Pgp modulation activity. Some aspects of structure-activity relationships are discussed. Regarding apoptosis induction, the most significant results were obtained for the polycyclic diterpenes ent-16alpha,17-dihydroxykauran-3-one and ent-16alpha,17-dihydroxyatisan-3-one.
PMID: 20032393
[Indexed for MEDLINE] Free full text
Full text links
Full Text FREE Anticancer Research
Save items
Add to Favorites
Similar articles
New macrocyclic lathyrane diterpenes, from Euphorbia lagascae, as inhibit [Planta Med. 2006]
Apoptosis induction and modulation of P-glycoprotein mediated r [Bioorg Med Chem. 2007]
Inhibition of P-glycoprotein transport activity in a resistant mouse lymphom [Anticancer Res. 2005]
Effect of cycloartanes on reversal of multidrug resistance and apoptosis i [Anticancer Res. 2004]
Antitumor activity of terpenoids against classical and atypical multidrug resi [Phytomedicine. 2010]
See reviews...
See all...
11:57
28/08/2018