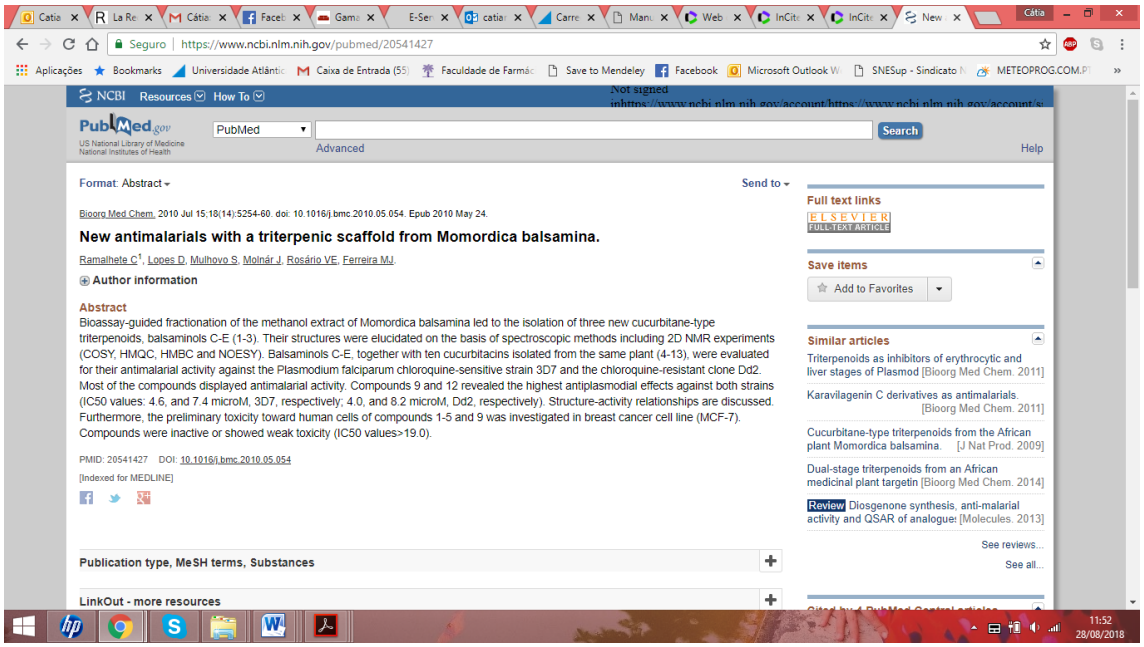
Seguro | https://www.ncbi.nlm.nih.gov/pubmed/20541427
NCBI Resources How To
PubMed.gov
US National Library of Medicine National Institutes of Health
PubMed
Search
Advanced
Help
Format: Abstract
Send to
Bioorg Med Chem. 2010 Jul 15;18(14):5254-60. doi: 10.1016/j.bmc.2010.05.054. Epub 2010 May 24.
New antimalarials with a triterpenic scaffold from Momordica balsamina.
Ramalhete C[1], Lopes D, Mulhovo S, Molnár J, Rosário VE, Ferreira MJ.
Author information
Abstract
Bioassay-guided fractionation of the methanol extract of Momordica balsamina led to the isolation of three new cucurbitane-type triterpenoids, balsaminols C-E (1-3). Their structures were elucidated on the basis of spectroscopic methods including 2D NMR experiments (COSY, HMQC, HMBC and NOESY). Balsaminols C-E, together with ten cucurbitacins isolated from the same plant (4-13), were evaluated for their antimalarial activity against the Plasmodium falciparum chloroquine-sensitive strain 3D7 and the chloroquine-resistant clone Dd2. Most of the compounds displayed antimalarial activity. Compounds 9 and 12 revealed the highest antiplasmodial effects against both strains (IC50 values: 4.6, and 7.4 microM, 3D7, respectively; 4.0, and 8.2 microM, Dd2, respectively). Structure-activity relationships are discussed. Furthermore, the preliminary toxicity toward human cells of compounds 1-5 and 9 was investigated in breast cancer cell line (MCF-7). Compounds were inactive or showed weak toxicity (IC50 values>19.0).
PMID: 20541427 DOI: 10.1016/j.bmc.2010.05.054
[Indexed for MEDLINE]
Publication type, MeSH terms, Substances
LinkOut - more resources
Full text links
ELSEVIER FULL-TEXT ARTICLE
Save items
Add to Favorites
Similar articles
Triterpenoids as inhibitors of erythrocytic and liver stages of Plasmod [Bioorg Med Chem. 2011]
Karavilagenin C derivatives as antimalarials. [Bioorg Med Chem. 2011]
Cucurbitane-type triterpenoids from the African plant Momordica balsamina. [J Nat Prod. 2009]
Dual-stage triterpenoids from an African medicinal plant targetin [Bioorg Med Chem. 2014]
Review Diosgenone synthesis, anti-malarial activity and QSAR of analogue: [Molecules. 2013]
See reviews...
See all...
11:52
28/08/2018