

Publication

Antibacterial compounds from *Salvia adenophora* Fernald (Lamiaceae)**JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 2831948**Author(s)** Bisio, A.; Schito, A. M.; Ebrahimi, S. N.; Hamburger, M.; Mele, G.; Piatti, G.; Romussi, G.; Dal Piaz, F.; De Tommasi, N.**Author(s) at UniBasel** [Hamburger, Matthias](#) ; [Ebrahimi, Samad](#) ;**Year** 2015**Title** Antibacterial compounds from *Salvia adenophora* Fernald (Lamiaceae)**Journal** Phytochemistry**Volume** 110**Pages / Article-Number** 120-32**Keywords** Lamiaceae, *Salvia adenophora* Fernald, ECD, Clerodane diterpenes, Derivatives of 12-oxo-phytodienoic acid, Antimicrobial activity

From the aerial parts of *Salvia adenophora* Fernald four derivatives of 12-oxo-phytodienoic acid (1-4) together with five clerodane diterpenoids (5,6,8-10), and one known diterpene (7) have been isolated. Compounds 1-6 and 8-10 are described for the first time. The structures were established by extensive 1D, 2D NMR and HRESI-TOFMS spectroscopic methods. Finally, the absolute configuration has been established by comparing of experimental and quantum chemical calculation of ECD spectra. Despite a total lack of antimicrobial activity of the plant extract, hinting to the existence of antagonistic interactions in the crude material, three oxylipins (2-4) displayed a promising inhibition on Gram-positive multidrug-resistant clinical strains including *Staphylococcus aureus*, *Streptococcus agalactiae* and, particularly, *Staphylococcus epidermidis*, while the compounds 9 and 10 revealed a specific and strain-dependent activity against *S. epidermidis*. Interestingly, the inhibition provided by these compounds was independent of the resistance patterns of these pathogens to classic antibiotics. No action was reported on Gram-negative strains nor on *Candida albicans*. These results confirm that clerodanes and, particularly, prostaglandin-like compounds can be considered as interesting antimicrobial agents deserving further study. (C) 2014 Elsevier Ltd. All rights reserved.

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