Rauter, A. P. ; Branco, I. ; Lopes, R. G. ; Justino, J.[1]; Silva, F.V. M.[1]; Noronha, J. P.; Cabrita, E. J. ; Brouard, I. ; Bermejo, J. (2007) – A new lupene triterpenetriol and anticholinesterase activity of *Salvia sclareoides. Fitoterapia*, 78 (7-8): 474-481. Retrieved from: http://www.sciencedirect.com/science/article/pii/S0367326X07001190. DOI: 10.1016/j.fitote.2007.02.013

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Abstract

A new lupene triterpenetriol was isolated from the acetone extract of the aerial parts of *Salvia sclareoides* and characterised as (1β,3β)-lup-20(29)-ene-1,3,30-triol (**1**). In addition, nepetidin (**2**), nepeticin (**3**), lupendiol (**4**), (1β,11α)-dihydroxy-lup-20(29)-en-3-one (**5**), ursolic acid (**6**), sumaresinolic acid (**7**) and hederagenin (**8**), were identified in this *Salvia* sp. To the best of our knowledge, the compounds 2 and 7 are new constituents in *Salvia* spp. The acetone, ethanol, butanol and water extracts of the plant were screened for the in vitro inhibitory activity of acetylcholinesterase (AChE) and butyrilcholinesterase (BChE), enzymes which play a role in the Alzheimer disease. All extracts inhibited acetylcholinesterase activity at 10 μg/ml, a remarkable activity since the standard drug rivastigmine does not inhibit acetylcholinesterase at the same concentration. Regarding the butyrilcholinesterase, the acetone extract at 1000 μg/ml was able to inhibit completely the enzyme activity and the butanol and ethanol extracts, at this concentration, produced a potent inhibition of BchE.

Keywords: *Salvia sclareoides*; Medicinal-plants; essential oil; Triterpenoid; (1β,3β)-Lup-20(29)-ene-1,3,30-triol; Acetylcholinesterase; Butyrilcholinesterase