Yiping Ye, J Pharmacogn Nat Prod 2016, 2:3(Suppl)
http://dx.doi.org/10.4172/2472-0992.C1.003

Diterpenoids from *Siegesbeckia pubescens* and their PPARγ agonist activities

Yiping Ye
Zhejiang Academy of Medical Sciences, China

We previously reported ameliorative effects of the aqueous extract of *Siegesbeckia pubescens* on experimental colitis in rats by activation of PPARγ and inhibition of NF-κB pathway, consequently suppressing the release of multiple pro-inflammatory cytokines. Here, activity-guided fractionation was isolated to obtain 8 ditepenoids by using reporter gene assays. The aqueous extract of *Siegesbeckia pubescens* was applied to resin column chromatography to get five fractions, and the activity-guided fractionation was further isolated by silica gel and Rp-18 column chromatography to obtain 8 compounds. HEK293 cells were transiently transfected by Lipofectamine®3000 with the expression plasmid of pCDNA-PPARγ, the reporter plasmid PPRE-tk-luc, and pRL-tk as internal reference plasmid and were incubated for 24h. Then, the cells were treated with above 8 compounds respectively and were incubated for 48h. Luciferase activity and fluorescence intensity were measured. The structures of 8 compounds were elucidated as diterpenoids, including two new diterpenoids. 7 of these diterpenoids except compound 5 displayed PPARγ agonist activities at the maximum concentration of no toxicity against HEK293T cells. These active diterpenoids may be potent natural PPARγ agonists for anti-inflammatory agents, anti-diabetics.

Biography

Yiping Ye has completed his PhD from Zhejiang University department of Chemistry. She is the Professor of Institute of Materia Medica, Zhejiang Academy of Medical Sciences. She has published more than 50 papers in reputed journals.

yeyiping2005@163.com

Notes: