Platelet Anti-aggregating Triterpene and Sterol Constituents from the Leaves of Acanthopanax senticosus

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From methanol extract of Acanthopanax senticosus, six platelet anti-aggregating compounds, chiasanogenin (1), chiasanoxide (2), ursolic acid (3), oleanolic acid (4), b-sitosterol (5) and daucosterol (6) were isolated. All of the isolated compounds showed dose-dependent inhibitory activities to rat platelet aggregation induced by all the agonist employed. Compound 1 showed about 50 folds higher potency than acetylsalicylic acid (ASA) on U46619 induced platelet aggregation (IC50: 6.21 μM) and 10 ~ 20 folds higher effect than ASA on epinephrine and arachidonic acid (AA) induced aggregation (IC50: 2.50 and 4.81 μM, respectively). Compounds 5 and 6 were 2 ~ 6 folds more inhibitory than ASA on collagen (IC50: 195 and 114 μM respectively) and U46619 (IC50: 170 and 56.1 μM respectively) induced aggregation.

Cholinesterase-inhibitory Farnesylacetone Derivatives from the Brown Alga Sargassum sagamianum

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In continuing search for bioactive compounds from Korean marine algae, we found cholinesterase-inhibitory activity in the methanolic extract of brown alga Sargassum sagamianum. After partitioning between CHCl3 and 30% MeOH, the former layer was purified by a series of ODS flash, silica column, gel-filtration on Sephadex LH-20, and HPLC to give two farnesylacetone derivatives. Their structures were identified by comparison with the literature data. Compounds 1 and 2 showed moderate acetylcholinesterase and butyrylcholinesterase inhibitory activities with IC50 values of 65.0~48.0 μM and 34.0~23.0 μM, respectively. Interestingly, farnesylactones have different skeletons from the known cholinesterase inhibitors such as tacrine, physostigmine, huperzine A, donepezil and tolserine.

Melanin Biosynthesis Inhibitors from the Tubers of Gastrodia elata
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