

论文

白首乌体外抑制肿瘤细胞的成分研究

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摘要:

目的 从萝科鹅绒藤属植物耳叶牛皮消(Cynanchum auriculatum Royle ex Wight)块根中分离出有细胞毒活性的2种C₂₁甾体苷。方法 用柱色谱和HPLC法分离纯化,通过化学降解及光谱分析(UV, IR, ¹HNMR, ¹³CNMR, DEPT, HR-FAB-MS, FAB-MS, HMQC和HMBC)鉴定其化学结构。结果 从白首乌中分离得到白首乌新苷A(I)与B(II),其化学结构分别为:告达庭-3-O-β-D-葡吡喃糖基-(1→4)-β-D-磁麻吡喃糖基-(1→4)-β-D-夹竹桃吡喃糖基-(1→4)-β-D-磁麻吡喃糖苷;告达庭-3-O-β-D-葡吡喃糖基-(1→4)-β-D-夹竹桃吡喃糖基-(1→4)-β-D-洋地黄毒吡喃糖基-(1→4)-β-D-磁麻吡喃糖苷。结论 白首乌新苷A和B均为新C₂₁甾体苷。

关键词: 白首乌 白首乌新苷A 白首乌新苷B 细胞毒活性

STUDIES ON THE CYTOTOXIC CONSTITUENTS OF CYNANCHUM AURICULATUM ROYLE EX WIGHT

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Abstract:

AIM To isolate and elucidate the chemical structures of two C-21 steroidal glycosides possessing cytotoxic activity from the root of Cynanchum auriculatum Royle ex Wight (Asclepiadaceae). METHODS The glycosides were isolated and purified by column chromatography on silica gel and HPLC. The molecular structures were determined on the basis of chemical evidence and extensive spectral analysis (UV, IR, ¹HNMR, ¹³CNMR, DEPT, HR-FAB-MS, FAB-MS, HMQC and HMBC). RESULTS Two C-21 steroidal glycosides, named cynanauriculosides A and B, were obtained and their structures were elucidated as caudatin 3-O-β-D-glucopyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-oleandropyranosyl-(1→4)-β-D-cymaropyranoside and caudatin 3-O-β-D-glucopyranosyl-(1→4)-β-D-oleandropyranosyl-(1→4)-β-D-digitoxopyranosyl-(1→4)-β-D-cymaropyranoside respectively. CONCLUSION Cynanauriculosides A and B are new compounds.

Keywords: cynanauriculocide A cynanauriculocide B cytotoxic activity Cynanchum auriculatum

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