Phytochemistry Letters

Dammarane-type triterpenoids with anti-cancer activity from the leaves of Cleome gynandra

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https://www.sciencedirect.com/science/article/pii/S1874390021000410

Abstract

Three dammarane-type triterpernoids including two new ones, cleogynones A and B (1 and 2), were isolated from the leaves of Cleome gynandra. The structures of the new triterpenoids were elucidated by spectroscopic data analysis and confirmed by single crystal X-ray crystallography. All three compounds showed moderate cytotoxicity against breast cancer (MDA-MB-468), cleogynone B (2) and compound (3) further showed cytotoxicity against colorectal cancer (HCT-116 & HCT-15). Cleogynone B was also moderately active against lung cancer (A549).