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Título	Antiproliferative Activity of Two Unusual Dimeric Flavonoids, Brachydin E and Brachydin F, Isolated from Fridericia platyphylla (Cham.) L.G.Lohmann: In Vitro and Molecular Docking Evaluation
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Resumo	Despite the breakthrough in the development of anticancer therapies, plant-derived chemotherapeutics continue to be the basis of treatment for most types of cancers. Fridericia platyphylla is a shrub found in Brazilian cerrado biome which has cytotoxic, antiinflammatory, and analgesic properties. The aim of this study was to investigate the antiproliferative potential of the crude hydroethanolic extract, subfraction (containing 59.3% of unusual dimeric flavonoids Brachydin E and 40.7% Brachydin F), as well as Brachydin E and Brachydin F isolated from F. platyphylla roots. The cytotoxic activity was evaluated in glioblastoma, lung, prostate, and colorectal human tumor cell lines. The crude hydroethanolic extract did not present cytotoxic activity, but its subfraction presented lower IC50 values for glioblastoma (U-251) and prostate adenocarcinoma (PC-3) cell lines. Brachydins E and F significantly reduced cell viability, proliferation, and clonogenic potential of PC-3, inducing them to the process of regulated cell death. In silico studies have indicated nuclear receptors as targets for Brachydins E and F, and molecular docking has pointed out their binding into glucocorticoid receptor (GR) ligand pocket. Targeting GR pathway has been described as a therapeutic strategy, especially for prostate cancer. These results suggest that Brachydin E and Brachydin F are promising compounds to be further explored for their antitumor effects.

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