[Cytotoxicity of isoflavones and biflavonoids from Ormocarpum kirkii towards multi-factorial drug resistant cancer](https://www.sciencedirect.com/science/article/pii/S0944711319300248)

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Description

**Background**

While incidences of cancer are continuously increasing, drug resistance of malignant cells is observed towards almost all pharmaceuticals. Several isoflavonoids and flavonoids are known for their cytotoxicity towards various cancer cells.

**Purpose**

The aim of this study was to determine the cytotoxicity of isoflavones: osajin (**1**), 5,7-dihydroxy-4ˈ-methoxy-6,8-diprenylisoflavone (**2**) and biflavonoids: chamaejasmin (**3**), 7,7″-di-*O*-methylchamaejasmin (**4**) and campylospermone A (**5**), a dimeric chromene [diphysin(**6**)] and an ester of ferullic acid with long alkyl chain [erythrinasinate (**7**)] isolated from the stem bark and roots of the Kenyan medicinal plant, *Ormocarpum kirkii*. The mode of action of compounds **2** and **4** was further investigated.

**Methods**

The cytotoxicity of compounds was determined based on the resazurin reduction assay. Caspases activation was evaluated using the caspase-Glo assay. Flow …