

# Flavones and New Isoflavone Derivatives from Microorganisms: Isolation and Structure Elucidation

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In the course of our chemical screening of actinomycetes and other bacteria from terrestrial and marine sources, several extracts showed colourless middle polar bands with strong UV absorption at 254 nm and brown to grey colouration with anisaldehyde/sulphuric acid. Working-up of such strains led to the isolation of a number of isoflavonoids. Daidzein (**1a**) and genistein (**1b**) are very wide-spread, however, compounds like kakkatin (**2b**, *Streptomyces* sp. GW39/1530) were known only from plant sources. Additionally, three new isoflavonoids were obtained, namely 4',7-bis-( $\beta$ -cymaropyranosyl)-genistein (**1e**) and 4'-hydroxy-6,7-methoxyisoflavone (**2c**) from the actinomycete isolate HKI 129-L, and genistein-4'-(6''-methyl)-salicylate (**1d**) from *Streptomyces* sp. isolate GW27/2506. **1d** is the first natural 4'-ester of an isoflavonoid and an aromatic acid. For the first time, also two flavonoids were isolated from bacteria, apigenin (**5a**) and luteolin-3'-methyl ether (**5b**).

*Key words:* *Streptomyces* sp., Flavones, Isoflavones, Genistein