

Yeast Glycogen Synthase Kinase-3 Pathway Inhibitors from an Organic Extract of *Streptomyces* sp.

ABSTRACT

Investigation of a microbial fermentation organic extract of *Streptomyces* sp. H7667 led to the isolation of three new imides, 3-[(5E)-5-methyl-4-oxo-2-hydroxy-5-octenyl glutarimide (1), 2-amino-N-2'-(phenylacetyl)propanimide (5), and 2-amino-N-(2'-(cyclohex-2''-enyl)acetyl)acetimide (6), and one new isoflavonoid glycoside, 6-O-methyl-7-O-Rhamnopyranosyl daidzein (7), along with four known compounds. Their structures were elucidated by HRESIMS, ¹H and ¹³C NMR, COSY, HMQC, HMBC, and NOESY spectra. Compounds 1-8 were evaluated for their inhibitory activities in the yeast glycogen synthase kinase-3 assay.