

# Polyhalogenation of Isoflavonoids by the Termite-Associated *Actinomadura* sp. RB99.

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## Projects

Investigation of secondary metabolites from insect-associated microbes and their contribution to insect homeostasis and defense

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Metabolomic and transcriptomic analysis of the defensive role of Actinobacteria within the fungus-growing termite system

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Functional and genomic analysis of bacterial and fungal natural products derived from the fungus-growing termite

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## Abstract

Based on high-resolution tandem mass spectrometry (HR-MS2) and global natural products social molecular networking (GNPS), we found that plant-derived daidzein and genistein derivatives are polyhalogenated by termite-associated *Actinomadura* species RB99. MS-guided purification from extracts of bacteria grown under optimized conditions led to the isolation of eight polychlorinated isoflavones, including six unreported derivatives, and seven novel polybrominated derivatives, two of which showed antimicrobial activity.

## Identifier

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