

ABSTRACT

During the course of screening for new metabolites from basidiomycetes, we isolated and characterized five previously undescribed secondary metabolites, skeletocutins M-Q (1-5), along with the known metabolite tyromycin A (6) from the fruiting bodies of the polypore *Skeletocutis* sp. The new compounds did not exhibit any antimicrobial, cytotoxic, or nematocidal activities. However, compound 3 moderately inhibited the biofilm formation of *Staphylococcus aureus* (*S. aureus*), while compounds 3 and 4 performed moderately in the L-leucine-7-amido-4-methylcoumarin (L-Leu-AMC) inhibition assay. These compounds represent the first secondary metabolites reported to occur in the fruiting bodies by *Skeletocutis*. Interestingly, tyromycin A (6) was found to be the only common metabolite in fruiting bodies and mycelial cultures of the fungus, and none of the recently reported skeletocutins from the culture of the same strain were detected in the basidiomes.

Keywords: basidiomycete; polyporaceae; secondary metabolites; structure elucidation.