

Cycloaspeptide A and Pseurotin A from the Endophytic Fungus

Penicillium janczewskii

Guillermo Schmeda-Hirschmann^{a,*}, Emilio Hormazabal^a, Jaime A. Rodriguez^b, and Cristina Theoduloz^b

^a Laboratorio de Química de Productos Naturales, Instituto de Química de Recursos Naturales, Universidad de Talca, Casilla 747, Talca, Chile. Fax: +56 71-20 04 48. E-mail: schmeda@utalca.cl

^b Departamento de Ciencias Básicas Biomédicas, Facultad de Ciencias de la Salud, Universidad de Talca, Casilla 747, Talca, Chile

* Author for correspondence and reprint requests

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Penicillium janczewskii K. M. Zalesky was isolated as an endophytic fungus from the phloem of the Chilean gymnosperm *Prumnopitys andina*. When grown in liquid yeast extract-malt extract-glucose broth, the fungus produced two main secondary metabolites. The compounds were for the first time isolated from this species and identified by spectroscopic methods as pseurotin A and cycloaspeptide A. This is the first report on the production of cyclic peptides by endophytic fungi from Chilean gymnosperms. Pseurotin A and cycloaspeptide A presented low cytotoxicity towards human lung fibroblasts with $IC_{50} \geq 1000 \mu M$. Pseurotin A showed a moderate effect against the phytopathogenic bacteria *Erwinia carotovora* and *Pseudomonas syringae*, with IC_{50} values of 220 and $112 \mu g ml^{-1}$, respectively.

Key words: *Penicillium janczewskii*, Cycloaspeptide A, Pseurotin A, Endophyte