

A Potent Insect Chitinase Inhibitor of Fungal Origin

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Z. Naturforsch. **58c**, 891–894 (2003);
received July 26/September 3, 2003

A water-soluble polysaccharide was isolated from the culture filtrate of a fungal strain, *Sphaeropsis* sp. TNPT116-Cz, as a novel insect chitinase inhibitor. It was purified to chromatographic homogeneity by ethanol precipitation, anion-exchange and gel filtration chromatography. Its molecular weight was estimated to be 16 kDa by gel filtration HPLC. Monosaccharide analysis showed that it contained glucose, galactose, *N*-acetylglucosamine and a deoxysugar. This polysaccharide showed potent and specific inhibitory activity against *Spodoptera litura* chitinase with an IC₅₀ value of 28 nM.

Key words: Chitinase Inhibitor, Extracellular Polysaccharide, *Sphaeropsis* sp.