

AIDS. Triterpenos dos esporos do Ganoderma lucidum e atividade inibitória contra a protease HIV-1

Triterpenes from the spores of Ganoderma lucidum and their inhibitory activity against HIV-1 protease.

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Abstract: Two new lanostane-type triterpenes, lucidumol A and ganoderic acid beta, were isolated from the spores of Ganoderma (G.) lucidum, together with a new natural one and seven that were known. The structures of the new triterpenes were determined as (24S)-24,25-dihydroxylanost-8-ene-3,7-dione and 3 beta,7 beta-dihydroxy-11,15-dioxolanosta-8,24(E)-dien-26-oic acid, respectively, by chemical and spectroscopic means. The quantitative analyses of 5 fruiting bodies, antlered form and spores of G. lucidum were performed by high performance liquid chromatography and demonstrated that ganoderic alcohol and acid contents were quite high in the spore. Of the compound isolated, ganoderic acid beta, (24S)-lanosta-7,9(11)-diene-3 beta,24,25-triol (called lucidumol B), ganodermanondiol, ganodermanontriol and ganolucidic acid A showed significant anti-human immunodeficiency virus (anti-HIV)-1 protease activity with IC50 values of 20-90 microM.

Keywords: JOURNAL ARTICLE Aphyllophorales/*CHEMISTRY Human HIV Protease/*METABOLISM HIV Protease Inhibitors/*ISOLATION & PURIF/*PHARMACOLOGY Nuclear Magnetic Resonance Spores, Fungal/CHEMISTRY Support, Non-U.S. Gov't Triterpenes/*ISOLATION & PURIF/*PHARMACOLOGY