

Polysaccharopeptide from *Coriolus versicolor* has potential for use against human immunodeficiency virus type 1 infection

Richard A. Collins and Tzi Bun Ng

Dept. of Biochem., The Chinese University of Hong Kong, Hong Kong

Abstract

Polysaccharopeptide (PSP) isolated from the edible mushroom *Coriolus versicolor* was tested for its potential as an anti-human immunodeficiency virus type 1 (HIV-1) compound in a series of *in vitro* assays. It demonstrated inhibition of the interaction between HIV-1 gp 120 and immobilized CD4 receptor (IC_{50} =150 microgram/ml), potent inhibition of recombinant HIV-1 reverse transcriptase (IC_{50} =6.25 microgram/ml), and inhibited a glycohydrolase enzyme associated with viral glycosylation. These properties, coupled with its high solubility in water, heat-stability and low cytotoxicity, make it a useful compound for further studies on its possible use as an anti-viral agent *in vivo*.

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