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**A review of research on the protein-bound polysaccharide (polysaccharopeptide, PSP) from the mushroom *Coriolus versicolor* (Basidiomycetes: Polyporaceae).**

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### **Abstract**

Protein-bound polysaccharides, designated as PSK and PSP, have been isolated from the CM-101 strain and the COV-1 strain, respectively, of the mushroom *Coriolus versicolor*. This article aims at summarizing existing research findings about PSP since information on PSK is well documented. 2. PSP possesses a molecular weight of approximately 100 kDa. Glutamic and aspartic acids are abundant in its polypeptide component, whereas its polysaccharide component is made up of monosaccharides with alpha-1,4 and beta-1,3 glucosidic linkages. The presence of fucose in PSK and rhamnose and arabinose in PSP distinguishes the two protein-bound polysaccharides, which are otherwise chemically similar. 3. PSP is classified as a biological response modifier. It induces, in experimental animals, increased gamma-interferon production, interleukin-2 production, and T-cell proliferation. It also counteracts the depressive effect of cyclophosphamide on white blood cell count, interleukin-2 production and delayed-type hypersensitivity reaction. Its antiproliferative activity against tumor cell lines and in vivo antitumor activity have been demonstrated. A small peptide with a molecular weight of 16-18 kDa originating from PSP has been produced with antiproliferative and antitumor activities. 4. PSP administered to patients with esophageal cancer, gastric cancer and lung cancer, and who are undergoing radiotherapy or chemotherapy, helps alleviate symptoms and prevents the decline in immune status.

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綜觀針對雲芝中蛋白聚醣 PSP 的研究

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這個研究報告剖析雲芝多醣體 PSK 及 PSP 的化學結構。

報告亦提到在動物 / 人類的臨床研究中，雲芝 PSP 被發現有可幫助防止癌細胞生長約的功能。雲芝

PSP亦能助多類癌症病人減輕因化療及放射治療帶來的不良副作用及維持平衡的免疫系統健康。各類癌症包括食道，胃及肺。