Coriolus Versicolor
mushroom research: PSP, PSK

When studied with modern clinical science, many medicinal mushrooms used in traditional Asian remedies have been found to possess powerful biological compounds.

Coriolus Versicolor (Trametes Versicolor) has been one of the most thoroughly researched mushrooms and is the subject of the most long-term human studies, particularly in the area of anti-cancer research.

**PSP - scientifically proven extract from Coriolus**

Known as the "Turkey Tail" in North America, Coriolus is found in the wooded temperate zones of the Northern Hemisphere. In Japan, it is called "Kawaratake" and in China, where it has been used in traditional remedies as a medicinal mushroom for liver, respiratory and immune system conditions, it is known as "Cloud Mushroom".

A number of chemically distinct extracts are produced from Coriolus, including PSP, a Polysaccharide-Peptide, and PSK, a protein-bound polysaccharide.

These immune stimulating compounds act as "biological response modifiers," making them the world's best-selling drugs for cancer therapy.

In the 1980's, Chinese researchers isolated PSP from the mycelia of a different strain of Coriolus: the Coriolus Cov-1 strain.

It is chemically similar to PSK, but differs from PSK in its strain and has a different monosaccharide composition and molecular weight.

With over 480 double-blind clinical studies, PSP has been proven to have potent immune stimulating and anti-tumour capacities, at a total effective rate over 82%.

**PSP vs. PSK**

<table>
<thead>
<tr>
<th>Terms</th>
<th>PSP</th>
<th>PSK</th>
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<tbody>
<tr>
<td>Strain</td>
<td>COV-1</td>
<td>CM-101</td>
</tr>
<tr>
<td>Material</td>
<td>Liquid cultured mycelia</td>
<td>Fermented mycelia</td>
</tr>
<tr>
<td>Extraction method</td>
<td>Hot water extract</td>
<td>Hot water extract</td>
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</tbody>
</table>

**PSP vs. Fruitbodies**

<table>
<thead>
<tr>
<th>Terms</th>
<th>PSP</th>
<th>Fruitbodies Extract</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.V. spectrum</td>
<td>Max. abs. at 420, 487 nm</td>
<td>Max. abs. at 486, 671 nm</td>
</tr>
<tr>
<td>I.R. spectrum</td>
<td>Obvious abs. at 1,380 nm</td>
<td>No obvious abs. at 1,380 nm</td>
</tr>
<tr>
<td>Polysaccharides</td>
<td>30%-35%</td>
<td>30%-45%</td>
</tr>
</tbody>
</table>
precipitated with ethanol | precipitated with (NH₄)₂SO₄
---|---
Mono-saccharide | Mono-saccharide
Galactose | Galactose + Mannose
Mannose | Mannose
Xylose | Xylose
Arabinose | Arabinose
Glucose + | Glucose +
Rhamnose + | Rhamnose +
Glucose - | Glucose -
Fucose - | Fucose -

Although the polysaccharide portion of a fruit body-derived extract is similar to PSP, it has no peptides and is still not a PSP. Where there is polysaccharide there is polypeptide.

**Real PSP is never produced from fruitbodies**

Published scientific studies of PSP have used only extracts derived from the mycelia stage of the mushroom lifecycle, not extracts from fruitbodies (mature mushrooms). The PSP extracted from mycelia is chemically different to extracts from the fruit body later in the mushroom lifecycle. There are differences in monosaccharide composition (PSP has Galactose, see table 2) and protein composition (PSP has peptides). It is the chemical composition of PSP from mycelia that has been the subject of scientific research.

The only known process capable of producing the pure and potent Coriolus Versicolor mycelium needed as the raw material for research-quality PSP is to extract from mycelia produced through deep layer cultivation in pharmaceutical grade sterile production facilities.

**Always seek medical advice**

Information provided on this website is provided for information purposes only and is not intended to replace advice from a qualified medical practitioner.

Coriolus Versicolor original research

As the leader in standardised mushroom extracts we believe passionately in sharing information from the growing body of published research on medicinal mushrooms. This is for education purposes only and MYCOPHARMA® cannot and does not vouch for the accuracy of independent research. To make your own informed decisions please refer to the original published research about Coriolus Versicolor.

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2. JOHN E. SMITH ET AL, MEDICINAL MUSHROOMS: THEIR THERAPEUTIC PROPERTIES AND CURRENT MEDICAL USAGE WITH SPECIAL EMPHASIS ON CANCER TREATMENTS; EXTRACTION, DEVELOPMENT AND CHEMISTRY OF ANTI-CANCER COMPOUNDS FROM MEDICINAL MUSHROOMS, CHAPTER 5.