

The Comparative Analysis of the Extracts of the Mycelia and the Fruitbodies of Yun Zhi (*Coriolus versicolor*)

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Abstract

After Yun Zhi mycelia or fruitbodies are extracted by hot water and precipitated by alcohol, the Yun Zhi mycelium extract (MWA) or Yun Zhi fruitbody extract (FWA) is obtained. Then they are respectively developed by anthrone and phenolsulfate, and an analysis is made by means of ultraviolet/visible light spectra. The result shows that the maximum absorption wavelengths of MWA are 420 and 487nm respectively and those of FWA are 671 and 486 respectively. After the water solution of MWA is developed by ninhydrin, we see that its maximum absorption wavelength is 586nm; but there is no obvious absorption of FWA. Through a comparison of the infrared spectra of MWA and FWA, we discover that there is an obvious absorption of MWA at 1380nm, while there is no obvious absorption of FWA at that place. By phenol sulfpate and Lowry methods to determine the contents of polysaccharide and protein, we find that the glucose contents of MWA and FWA are 36% and 48% respectively and the protein contents are 33% and 21% respectively. With a rotatory instrument to measure the specific rotatory power of MWA and FWA, we find that MWA is -0.04 and that of FWA is -0.69. With DEAE-cellulose for column chromatography, we find that the eluant of MWA contains 3 kinds of monosaccharide: galactose, mannose and rhamnose while that of FWA contains only 2 kinds of monosaccharide: galactose and rhamnose. The 0-2 mol of eluant of MWA contains 6 monosaccharide: glucose, mannose, arabinose, xylose and rhamnose while that of FWA contains 5

monosaccharide: glucose, mannose, arabinose, xylose and rhamnose. The main ingredient of FWA is not absorbed on DEAE-cellulose. Its molecular weight is 6200 Da, while that of MWA is absorbed on DEAE-cellulose. its molecular weight is 26000 Da.