

## عنوان مقاله:

The effect of consumption of Agaricus blazei edible mushroom on caspase ۲ gene expression in hepatitis C patients using system biology and microarray data

## محل انتشار:

مجله سرطان شناسی و علوم پزشکی، دوره 3، شماره 3 (سال: 1402)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Introduction: Agaricus blazei mushroom is used as a food and medicine, its effective composition is beta-glucan, which is used to treat some cancers and infections, including hepatitis C. Hepatitis C is an inflammatory disease that causes liver necrosis. Caspase۲ protein is one of the factors promoting cell apoptosis and plays a role in tumor suppression. The purpose of this study is to determine the expression changes of the caspase۲ gene and its effects on liver cancer. Materials and Methods: In this project, raw expression data was obtained from the NCBI (National Center for Biotechnology Information) GEO (Gene Expression Omnibus) database section and using bioinformatics tools and methods and system biology such as Matlab (An abbreviation of "MATrix LABoratory), GEOR۲ (Online software) and Cytoscape, the effect of consuming the desired mushroom on caspase۲ gene expression was investigated. Results: It was found that the beta-glucan combination has an increasing effect on target gene expression ( $p\text{-value}=0.05692$ ). Conclusion: The results show that the beta-glucan present in the mushroom can play a role as a prevention and even treatment of liver cancer by increasing the expression of caspase ۲ protein by directing the damaged cell towards apoptosis.

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## کلمات کلیدی:

Beta-glucan, Agaricus blazei, Hepatitis C, Caspase ۲, Microarray, System biology

## لینک ثابت مقاله در پایگاه سیویلیکا:

