

## عنوان مقاله:

The impact of extracellular enzymes of *Trichoderma viride* and *Trichoderma harzianum* on succinoglycan produced from *Agrobacterium radiobacter*

## محل انتشار:

کنفرانس علوم کشاورزی و محیط زیست (سال: 1392)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

Two strain of *Trichoderma* (*T. viride* and *T. harzianum*) were isolated and used for  $\beta$ -glucanase enzyme production. The succinoglycan was produced by fermentation of sucrose by *Agrobacterium radiobacter* and its chemical structural properties were investigated by TLC, FT-IR and <sup>1</sup>H-NMR spectroscopy. The results showed that the biogum is composed of glucose and galactose units, carrying pyruvate, succinate and acetate groups and indicated the presence of succinoglycan. The highest  $\beta$ -glucanase activity was observed in *T. harzianum*. The SDS-PAGE profiles have several enzyme bonds such as  $\beta(1,3)$ ,  $\beta(1,4)$  and  $\beta(1,6)$  glucanase. The *T. harzianum* and *T. viride* have both enzyme bonds of  $\beta(1,3)$  glucanase and  $\beta(1,6)$  glucanase. Cel6A (CBH II) only was observed in *T. harzianum*. The high values  $\beta$ -succinoglycanase activity in *T. harzianum* due to present of  $\beta(1,3)$ ,  $\beta(1,6)$  glucanase enzymes and synergism that occurs between of them. Succinoglycan is a good substrate for total  $\beta$ -glucanase activity assay

## کلمات کلیدی:

*Trichoderma* spp.; Succinoglycan; Chemical structure;  $\beta$ -glucanase

## لینک ثابت مقاله در پایگاه سیویلیکا:

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