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Enhancement of Production of Pharmaceutical Compounds; Scopoletin and coumaric acid Via Yeast Extract Elicitation of Cell Culture of *Althaea officinalis*

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***SUMMARY. Althaea officinalis* (Malvacaeae) is a famous medicinal herb. It is considered as a source of some pharmaceutically important compounds including scopoletin, which has antifungal, antioxidant and anticancer activity. In this study we made an attempt to investigate the effect of the yeast extract, a biotic elicitor, on production of scopoletin as well as coumaric acid in cell suspension culture of *Althaea officinalis*. Based on HPLC results, yeast extract has significant effect on production level of both scopoletin and coumaric acid and among different concentrations of this elicitor assayed, the concentration of 100 µg/mL showed maximum improvement. Hence, the protocol established in the present investigation provides an opportunity for year-round production of these pharmaceutical compounds.**

RESUMEN. Althaea officinalis (Malvacaeae) es una famosa hierba medicinal. Se considera como fuente de algunos compuestos farmacéuticamente importantes que incluyen a la escopoletina, que tiene actividad antifúngica, antioxidante y anticancerígena. En este estudio, intentamos investigar el efecto del extracto de levadura, un inductor biótico, en la producción de escopoletina y ácido cumárico en el cultivo de suspensión celular de *Althaea officinalis*. En base a los resultados de HPLC, el extracto de levadura tiene un efecto significativo en el nivel de producción tanto de escopoletina como de ácido cumárico y, entre las diferentes concentraciones de este elicitor evaluadas, la concentración de 100 µg/mL mostró una mejora máxima. Por lo tanto, el protocolo establecido en la presente investigación proporciona una oportunidad para la producción durante todo el año de estos compuestos farmacéuticos.

KEY WORDS: cell suspension culture, elicitation, scopoletin, yeast extract.

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