

عنوان مقاله:

The effects of *Artemisia dracunculus* on the expression profiles of IL- β and TNF α genes in Rainbow trout
(*Oncorhynchus mykiss*)

محل انتشار:

سومین کنگره بین المللی و چهارمین همایش ملی زیست فناوری گیاهان دارویی و قارچهای کوهی (مجازی) (سال: 1400)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

The current research was conducted to examine the benefits of the administration of *Artemisia dracunculus* (AD) for the immune system of Rainbow trout (*Oncorhynchus mykiss*). Gene expression profiles of immune system including IL- β and TNF α genes were evaluated by real time RT-PCR tests using TaqMan® probes. Firstly the extract from the aerial parts of AD was prepared. Then, the ingredients of the basal diet and the acquired AD extract were blended in an appropriate concentration to reach four experimental diets with various amounts of AD as follows: with 0 g (control group, 0 %), 1 %, 2 % and 3 % of AD plant extracts. Twenty four Rainbow trout (*O. mykiss*) juvenile, weighing on average 12.38 ± 0.10 g (mean \pm SD), were distributed randomly into 4 groups, fed the experimental diets for 8 weeks. The gene expression analysis showed that IL- β gene expression of the AD treatment groups from 1% (1.64 fold) to 3% (5.27 fold) is significantly up-regulated but TNF α gene expression is significantly down-regulated from 1% (0.93 fold) to 3% (0.11 fold). Treating with different amounts of AD extract suppressed TNF α gene expression in rainbow trout which is in agreement with the results of other phenolic phytochemicals treatments. Our result also showed that all concentrations increased IL- β gene expression, significantly. More concentrated AD extract treatment, more IL- β gene expression. Some phenolic compounds studies showed similar results. From both TNF α and IL- β gene expression experiments, this could be concluded that the best concentration of AD extract for rainbow trout treatment is 2% which significantly up-regulates IL- β but not significantly down-regulate TNF α (as an unwanted effect).

کلمات کلیدی:

Artemisia dracunculus, gene expression, immune system, Rainbow trout, real time RT-PCR

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