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Effect of binase on phorbol myristate acetate-induced apoptosis of human peripheral blood granulocytes and monocytes

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Abstract

Effect of binase (RNase of *Bacillus intermedius*) on phorbol myristate acetate-(PMA)-induced apoptosis of human peripheral blood granulocytes and monocytes was studied in vitro by flow cytometry. Both toxic (400 µg/ml) and nontoxic (40 µg/ml) binase concentrations were tested. The binase end-point effect was dependent on the target cell population and the binase concentration. In a granulocyte subset, the 400 µg/ml concentration resulted in strongly pronounced stimulation of PMA-induced apoptosis. In a monocyte subset, the 40 µg/ml concentration developed a protective effect as judged by an increase in a percentage of viable cell subset and by slowing-down cells transition from an early to late PMA-induced apoptotic phase.

Keywords

Apoptosis, Binase, Flow cytometry, Granulocytes, Monocytes, Phorbol myristate acetate