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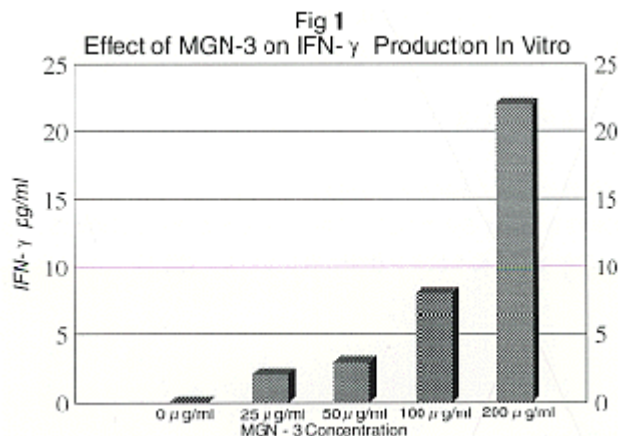
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## **EFFECT OF MGN-3 ON HUMAN NATURAL KILLER CELL ACTIVITY AND INTERFERON- $\gamma$ SYNTHESIS IN VITRO.**

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MGN-3 is an extract of arabinoxylan from rice bran that has been enzymatically treated with an extract from *Hyphomycetes* mycelia. In this study we investigated the effect of MGN-3 on natural killer (NK) cell activity and interferon- $\gamma$  (IFN- $\gamma$ ) synthesis by peripheral blood mononuclear cells (MNC). MNC was prepared from peripheral blood of healthy individuals and incubated with various concentrations of MGN-3 for 16 hrs, and then NK cell activity was measured by 4 hr  $^{51}\text{Cr}$ -release assay using K562 Tumor cells as target. NK activity was significantly enhanced (2-5 fold) by treatment with MGN-3 at 0-100  $\mu\text{g/ml}$ . In an attempt to investigate the mechanism by which MGN-3 enhances NK activity, we examined the effect of MGN-3 on IFN- $\gamma$  production by MNC. Culture supernatants of the cells incubated with MGN-3 were collected and analyzed for IFN- $\gamma$  synthesis by ELISA. IFN- $\gamma$  production was increased >2 fold (Fig 1). We concluded that MGN-3 is a potent biological response modifier (BRM) and may be useful in immunotherapy of cancer.



MGN-3. was offered by Daiwa Pharmaceutical Co., Ltd. Tokyo-Japan.