

## **In vitro effect of MGN-3 on macrophage group cell activity.**

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### **Objective**

To examine the effect of MGN-3 on macrophage group cell to induce the production of pharmacologic mediators. TNF- $\alpha$ , IL-6 and NO were assayed as mediators.

### **Method**

Macrophage group cells were incubated with various concentrations of MGN-3(1-100  $\mu$ g/ml)and supernatants were collected for assay of mediators.

assay

TNF:cytotoxicity on L929

IL-6:cytotoxicity on B13.19

NO:colorimetry reaction by Griess reagent.

LPS was used as a positive control.

### **Results**

#### 1. Murine macrophage cell line RAW264.7

Result was showed Fig 1. MGN-3 has had either activities on three kind of mediators more than 10  $\mu$ g/ml concentrations.MGN-3 showed strong activity as well as LPS at 100  $\mu$ g/ml.

#### 2. Murine peritoneal macrophages

The effect of MGN-3 against the macrophage originated from peritoneal cavity of normal mouse(C3H/He)was shoewd Fig 2.MGN-3 showed an activity to introduce mediators within 10  $\mu$ g/ml to 100  $\mu$ g/ml as the same case as RAW264.7.

#### 3. Human macrophage cell line U937.

MGN-3 introduced the production of TNF and IL-6 on human macrophage cell line U937 and it showed very strong activity to introduce significaut amount of cytokines

as same as LPS at 100  $\mu$ g/ml.(Fig 3) We concluded that MGN-3 was a substance to work as a stimulator against normal cell of either mouse or human if it acted directly to macrophages. The effective concentration was more than 10  $\mu$ g/ml.

## **Discussion**

In this study MGN-3 was examined for its ability to enhance macrophage group cell activity in vitro. The results showed that MGN-3 is a potent substance to activate either momal mouse or human macrophage. The active concentrations were suggested over 10  $\mu$ g/ml.We are going to study the macrophage activation or immuno activation in vivo by per oral administ - ration.