

β group revealed that Rg1 suppresses the release of NO and IL-1 β at 100 μ M. In conclusion, Rg1 may play a certain role in treatment and prevention of AD in a way to suppress the immune reaction in microglia adjacent around the neuron cell.

[PB4-9] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

Effects of *Bifidobacterium* spp. isolated from the feces of healthy adults on the enhancement of the presentation of exogenous particulate antigen in association of MHC Class I

Han ShinHa^o, Song YoungCheon, Park EunJung, Choi SungSook, Ha Nam-Joo, Kim KyungJae

Department of Pharmacy, Sahmyook University, 26-21 Gongreung-Dong, Seoul, 139-742 South Korea

Bifidobacterium spp. is nonpathogenic, Gram-positive and anaerobic bacteria, which inhabit the intestinal tract of humans and animals. *Bifidobacterium* spp. plays important roles in human health. However, the influence of exogenous factors on species composition of fecal bifidobacteria is still unclear. In this study, we wished to determine whether presentation of exogenous OVA (10 μ g/ml) could be enhanced by the culture supernatant of ten *Bifidobacterium* spp. isolated from the feces of healthy adult Korean (20-30 years old). To facilitate this function DC acquire Ag from a variety of sources. DC can uptake Ag released from cells undergoing apoptosis or necrosis for presentation to MHC class I restricted CTL. The objective of this study was to investigate the effects of several *Bifidobacterium* spp. culture supernatant on the function of dendritic cell as antigen presenting cells by B3Z assay. Characterization of the effects of *Bifidobacterium* spp. on the production of macrophage mediators may contribute to a better understanding of how this genus affects immune function at the cellular level. In this study, we used the RAW 264.7 murine macrophage model to evaluate the effects of human *Bifidobacterium* spp. and showed the enhancement of production of nitric oxide (NO) and tumor necrosis factor (TNF- α).

[PB4-10] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

Evaluation of the immune responses following treatment of diabetes by traditional herbal drugs in streptozotocin-induced diabetic mice

Yun Yunha^o, Han Shinha, Son Hanshik, Lim Heejung, Song Youngcheon, Park Eunjung, Kong Hyunseok, Lee Sookyeon, Ha Nam-Joo, Kim Kyungjae

Department of Pharmacy, Sahmyook University, Seoul 139-742

This experiment was designed to evaluate the immune responses after treatment of diabetes by using water extract of traditional herbal drugs on the splenocytes and peritoneal macrophages in vivo. We found two herbal materials of the hypoglycemic agents based on inhibitory activity of α -glucosidase. These potential herbal drugs which remarkably inhibited α -glucosidase in STZ-induced diabetic mice (STZ 150 mg/kg, i.p.) were Mori radices Cortex (MRC, 2.32 mg/mouse) and Cudraniae radices Cortex (CRC, 2.24 mg/mouse). The herbal drugs were administered orally maltose or starch loaded groups into mice twice a day for 7 days. Peritoneal macrophages were harvested 3 days after thioglycollate broth (3%, i.p.) injection and spleen was also received at the same time. The proliferation assay of splenocytes and nitric oxide (NO) production of peritoneal macrophages were carried out by addition of mitogens. MRC in maltose-loaded groups increased the proliferation of splenocytes with LPS (50 ng/ml). MRC, CRC, Acarbose in starch-loaded groups appeared to be lower than control for the proliferation. Acarbose in maltose and starch-loaded group was found to be enhanced NO production with treatment of