

To determine the occurrence of vancomycin-resistant Enterococci in raw milk sample, we examined raw milk samples for 6 months. Enterococci were isolated directly from Enterococcal selective agar plates supplemented with 2mg of vancomycin per liter. 19 strains were selected and identified by Vitek system. To determine resistance, 19 isolates were tested with vancomycin and teicoplanin. Vancomycin-resistant Enterococci were genotyped by PCR analysis and 5 of 19 isolates were VanC-1 type.

[PC2-12] [ 04/19/2001 (Thr) 15:30 - 16:30 / Hall 4 ]

### Carrageenan-induced ulcerative colitis induces GAGs degrading enzymes of intestinal bacteria

Jang, J.W.<sup>0,1</sup>, Bae, E.-A.<sup>2</sup>, Han, M.J.<sup>2</sup>, Kim, D.-H.<sup>1</sup>

<sup>1</sup>College of Pharmacy, Kyung Hee University, <sup>2</sup>Department of Food and Nutrition, Kyung Hee University

Ulcerative colitis (UC) is a non-infectious chronic intestinal inflammatory disease in humans. These animal models were mainly made by hydrolyzed carrageenan and 2,4-dinitrochlorobenzene. However, the mechanism underlying their pathogenesis are not well known. Therefore, we here studied the relationship between intestinal bacterial enzymes and carrageenan/DNCB-induced UC. These UC model mice all showed signs of diarrhea, occult blood, prominent regenerations of the colonic mucosa and shortening of large intestine. In hydrolyzed carrageenan- and DNCB-induced UC model mice, GAGs degrading enzymes of intestinal bacteria, particularly chondroitinase and hyaluronidase, were potently induced. The hydrolyzed carrageenan exhibited the in vitro cytotoxicity against intestinal epithelial cell line (IEC18). The hydrolyzed carrageenan also induced bacterial GAGs-degrading enzymes in human intestinal bacterial culture system. These UCs were improved by antioxidant herbal drugs.

Poster Presentations - Field C3. Cell Biology

[PC3-1] [ 04/19/2001 (Thr) 15:30 - 16:30 / Hall 4 ]

### A Role of NF- $\kappa$ B Activation on Melanogenesis in Transfectant Human HaCaT Keratinocytes

Ahn KS<sup>0</sup>, Moon KY<sup>1</sup>, Kim YS<sup>\*</sup>

Natural Products Research Institute, Seoul National University, Seoul 110-460, <sup>1</sup>Kwangju Health College, Kwangju, 506-701, Korea

NF- $\kappa$ B (nuclear factor- $\kappa$ B) plays a particularly central role in epidermal biology. It is well established that ultraviolet radiation (UVR) is one of the mechanisms to induce the activation of NF- $\kappa$ B in human skin. NF- $\kappa$ B activation by UVR is involved in immune or inflammation responses as well as growth control of cells. In order to demonstrate the role of NF- $\kappa$ B activation on melanogenesis, we transfected pNF- $\kappa$ B-SEAP-NPT plasmid into human HaCaT keratinocytes. Transfectant cells released