[PB4-12] [10/17/2002 (Thr) 13:30 - 16:30 / Hall C]

Immune responses to synthetic peptides of RSV F protein

Kim JungKwon[oa], Lee HoanJong[b], Kim Hong-Jin[a]

[a]College of Pharmacy, Chung-Ang University, Seoul, 156-756, Korea;[b]Dept. of Pediatrics, College of medicine, Seoul National University, 110-744, Korea

The fusion (F) protein of respiratory syncytial virus(RSV) is an important antigen in including cross-protective immunity with neutralizing activity. Two peptides homologous to amino acid 205-225(F/205-225) and 255-278 (F/255-278) of the F glycoprotein of RSV containing B cell and T cell epitope were synthesized and then conjugated with KLH. To evaluate the immunological activities of the two conjugated vaccines, the vaccines were administrated into BALB/c mice for times by the intranasal(i.n) route in the presence of cholera toxin B(CTB) as a mucosal adjuvant. Each the peptides specific serum IgG responses and saliva IgA were detected after a second immunization, and a third immumization, respectively. Combined immunization of F/205-225 and F/255-278 also had the similar immunological response in the IgG and IgA levels with that of F/205-225 or F/255-278 alone. These results indicate that the two peptide-conjugate vaccines could be candidates for the development of RSV vaccines.

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Anti-/pro-apoptotic regulatory potentials of LPS/IFN-γ in the mulnutrition induced macrophage

Cho SeongJun[o], Rhee DongKwon, Pyo SuhkNeung

College of Pharmacy, Sungkyunkwan University, Suwon, 440-746, Kyunggi-Do, South Korea

Macrophage activated by LPS/IFN-γ play a important role in imflammation, innate immunity and tumor immunity. The recent report has indicated that LPS treated bone marrow macrophages were induced apoptosis, but IFN-γ protects from apoptosis induced by several stimuli in complete medium condition (Jordi et al., Immunity, Vol.11, 103-113, 1999). Since relationship between LPS or IFN-γ and apoptosis in malnutirition (conditional medium condition;without amino acid, serum) is unknown, we investigated the anti- or pro-apoptotic potentials of LPS or IFN-γ to the malnutirition induced macrophage. Peritoneal macrophages were isolated from mouse, purified macrophages were treated with LPS or IFN-γ in complete medium condition. After treatment, cells were further incubated in conditional medium condition to induce apoptosis. Apoptotic cells were determined by MTT assay, Annexin V assay, PI staining and DNA fragmentation assay. Apoptotic cells of LPS treated macrophage were increased as compared with those of untreated macrophage. However, treatment of cells with IFN-γ resulted in the enhancement of apoptosis. These data demonstrate that LPS or IFN-γ regulates apoptosis of macrophage by different mechanism in malnutrition. Moreover, these results suggest that apoptotic pathway of LPS or IFN-γ treated macrophage is regulated differently in manutrition and complete medium condition.

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The Production of IFN-γ by 3LL/TNF-α-Activated Macrophages Requires p38, JAK-2 Signalling and is Enhanced by New Protein Synthesis.

[1]Park DaeSup[o], [1]Cho SeongJun, [1]Baeg HyeKyoung, [2]Baek SoYoung, [2]Lee HyunAh, [1]Pyo SuhkNeung.

[1]College of Pharmacy, Sungkyunkwan University, SUWON, SOUTH KOREA;[2]The Cancer Center, Samsung Medical Center, SEOUL, SOUTH KOREA

Macrophages have been known to play an essential role in tumor angiogenesis and produce a number of growth stimulators and inhibitors. Thus macrophages appear to influence every stage of angiogenesis.
In this report, TNF-α was able to induce the production of IFN-γ in cancer cell-contacted macrophage. TNF-α alone released relatively little IFN-γ whereas live tumor cells (3L L) alone releasd IFN-γ markedly from macrophage. However, TNF-α and 3LL together enhanced IFN-γ release synergistically. The effects of TNF-α on