

E109 Polyamines Regulate Protein Phosphorylation in MCF-7 Human Breast Cancer Cells

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Polyamines are organic cations with multiple functions in cell proliferation, differentiation. In MCF-7 cells, phosphorylations of the 125, 67, 51, 48, 46, and 42 kDa protein were markedly increased by E_2 , TGF α , or EGF stimulation, but DFMO extremely inhibit protein phosphorylation. Polyamines added exogenously overcame the inhibitory effect of DFMO in most phosphoproteins. Among many phosphoproteins, we found an elevated tyrosine phosphorylation in 51, 48, and 46 kDa protein in E_2 -, TGF α - EGF-treated MCF-7 cells, but the level of tyrosine phosphorylation of those proteins were inhibited by DFMO. Polyamines added externally reversed its inhibitory effect. Strangely, tyrosine phosphorylations of 125 and 87 kDa proteins were enhanced by DFMO in E_2 -, TGF α -, or EGF treatment. In membrane fragments, E_2 , TGF α , or EGF increased phosphorylation of 167, 140, 125, 67 kDa membrane proteins. Total membrane phosphorylation is inhibited, but tyrosine phosphorylation is enhanced with DFMO. Our results suggest that polyamines are involved in multiple protein phosphorylation pathways in hormone induced breast cancer cell signaling.

E110 Purification and Characterization of a Antigenic Protein Specific for *Clonorchis sinensis*

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Clonorchis sinensis(*C. sinensis*) is one of the most prevalent helminth of humans in Korea. In the present, more sensitive and specific antigen is required for the serodiagnosis of *C. sinensis*. The 7 kDa protein was identified as a antigen specific for *C. sinensis* in the cross-reaction experiment with other parasite-infected human sera. The 7 kDa protein was purified by ammonium sulfate precipitation, anion exchange chromatography, cation exchange chromatography, gel filtration and reverse phase chromatography. The 7 kDa protein had the isoelectric point of 6.0 and was a glycoprotein. The N-terminal amino acid sequence of the 7 kDa protein was 5'-AEETRAKLRESGQKLWTAVVAAARKXAERVR-3'. The 7 kDa protein positively reacted with five *C. sinensis*-infected human sera, but not with normal human sera.