Z607 Effect of Ultraviolet Radiation or 3-Aminobenzamide on Apoptosis in HeLa S_3 cells

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The present study has performed to elucidate the effect of Ultraviolet radiation (UV) or 3-aminobenzamide (3AB) on apoptosis in HeLa S_3 cells. Four assays were employed in this study : gel electrophoresis of isolated DNA, quantitative assay of fragmented DNA, morphological assessment of apoptotic cell and western blot analysis. Alteration of DNA level on apoptosis was determined by DNA ladder pattern. DNA ladder pattern in HeLa S_3 cells irradiated with UV was observed from 6 hrs to 18 hrs incubation. Whereas the DNA ladder pattern was not shown in HeLa S_3 cells treated with 3AB. Expression of heat shock protein (Hsp) 70 in HeLa S_3 cells treated with UV was shown from 6 hrs to 9 hrs incubation and then it was gradually decreased according to incubation time.

Z608 Single Nucleotide Polymorphisms of Antigen Processing Genes, *TAP2, LMP2* and *LMP7* in Koreans

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Antigen processing genes, transporter associated with antigen processing (*TAP1* and *TAP2*) and the low molecular weight polypeptide (*LMP2* and *LMP7*), are tandemly located in the HLA class II region on 6p21.3. *TAP1* and *TAP2* encode subunits of transporter that translocates peptides into the endoplasmic reticulum, where peptides become associated with MHC class I. *LMP2* and *LMP7* encode two subunits of the proteasome complex involved in the degradation of cytosolic proteins and generation of antigenic peptides. To investigate the genetic variations of *TAP2*, *LMP2* and *LMP7*, we analyzed single nucleotide polymorphisms (SNPs) of *TAP2*, *LMP2* and *LMP7* in 202 unrelated Koreans using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP). The allele frequencies of *TAP2*, *LMP2* and *LMP7* in Koreans compared to those of other ethnic population. *TAP2* alleles have been named from A to K based on polymorphisms of codon, 379, 565, 665, and 687. The observed heterozygosity of TAP2 alleles was 0.60. And Polymorphism information content (PIC) value was 0.40. The SNP at codon 60 in the *LMP2* was detected by *Hha*I RFLP, and the allele frequencies of *LMP2*H* and *LMP2*R* were 0.275 and 0.725, respectively. The allele frequencies of *LMP7*G* and *LMP7*T*, which is the SNP at intron 5 in LMP7 using *Hha*I-RFLP, were 0.619 and 0.381, respectively. In this study, we characterized SNPs of antigen processing genes, *TAP2*, *LMP2* and *LMP7* in Koreans and no deviation from the expectation according to the Hardy-Weinberg equilibrium was found. And the allele frequencies of *TAP2*, *LMP2* and *LMP7* in Koreans observed no differences those of Cacausians and Asians.