

论著

丙烯酰胺诱导小鼠淋巴瘤细胞tk基因突变的研究

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摘要 背景与目的: 研究丙烯酰胺(Acrylamide,AA)对小鼠淋巴瘤L5178Y3.2.7c-tk+/-细胞tk基因突变频率的影响。材料与amp;方法: 使用丙烯酰胺对L5178Y细胞进行梯度染毒, 分别进行细胞毒性, 细胞接种效率, 相对悬浮生长率和突变频率的测定。结果: 随着AA剂量的增加, L5178Y细胞的相对存活率和悬浮生长率均明显降低。在150~750 μg/ml范围内诱导L5178Y细胞tk基因的突变频率高于自发突变频率1~9倍, 表明具有较强的致突变性。结论: AA对L5178Y细胞具有明显的细胞毒性, 并可以诱导tk基因的突变。

关键词 [丙烯酰胺](#); [tk位点](#); [致突变作用](#); [L5178Y细胞](#)

Acrylamide Induce tk Gene Mutation in Mouse Lymphoma Cells

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Abstract BACKGROUND & AIM: To investigate the effect of acrylamide(AA) on the tk gene of mouse lymphoma cells. MATERTAL AND METHODS: L5178Y cells were treated with AA at different concentrations. Determination of cytotoxicity, cell inoculation efficiency, relative survival rate and mutation frequency was performed. RESULTS: The relative survival rate and suspension growth rate of L5178Y cells decreased significantly with the increasing doses of AA. The mutation frequency of tk gene induced by AA(150~750 μg/ml) was 1~9 times higher than that of spontaneous mutation frequency of L5178Y cells. CONCLUSION: AA have obvious cytotoxic and mutagenic effects on tk gene in L5178Y cell.

Keywords [acrylamide](#) [tk locus](#) [mutagenesis](#) [L5178Y cell](#)

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