

## 实验方法

# TK6细胞 *tk* 基因突变试验检测甲基磺酸甲酯的诱变性

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收稿日期 2000-12-15 修回日期 网络版发布日期 2009-3-20 接受日期 2001-8-22

**摘要** 本研究通过用标准诱变剂甲基磺酸甲酯(MMS)处理TK6细胞,对培养物进一步作 *tk* 位点突变测试,以及细胞 *p53* 基因蛋白表达水平的检测.结果表明,MMS可诱导TK6细胞 *tk* 位点的突变,诱发突变是自发突变的2~7倍.在 *tk* 位点诱发了两种不同表型的突变集落:即正常生长突变体(*tk*-NG mutant)和慢生长突变体(*tk*-SG mutant).但以慢生长突变体为主.MMS处理后,TK6细胞P53蛋白的表达水平增高.本研究为将TK6细胞应用于我国 *tk* 基因突变的毒理学评价和机理的研究提供了实验依据.

**关键词** [细胞,TK6; 基因,tk; 突变; 甲基磺酸甲酯](#)

分类号 [R99](#)

## Application of TK6 cells in *tk* gene mutation assay for mutagenicity of methaneslfonate

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### Abstract

*tk* Locus mutation frequency and *p53* gene protein expression level were detected after TK6 human diploid lymphoblastoid cells were treated with methyl methanesulfonate(MMS). The results showed that MMS induced *tk* locus mutation with mutation frequency 2—7 times higher than that of spontaneous mutation frequency of TK6 cells. There were two different phenotypes of mutation colonies, namely *tk*-normal growth(*tk*-NG) and *tk*-slow growth(*tk*-SG) mutant colonies, but mainly was *tk*-SG mutant colonies. The level of P53 protein expression increased after treatment of TK6 cell with MMS. Application of TK6 cells in *tk* gene mutation assay provides another method for testing gene mutation induced by chemical mutagens.

**Key words** [cells](#) [TK6](#) [genes](#) [tk](#) [mutation](#) [methyl methanesulfonate](#)

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