

BrdU抗性细胞特性的研究 II.四个抗性亚系核仁形成区 (NORs) 活性和BrdU抑制NORs活性机制的探讨

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收稿日期 修回日期 网络版发布日期 接受日期

摘要 从中国仓鼠细胞株Wg3h中, 通过Brd U处理获得了两个抗30 ug/ml BrdU和两个抗60ug/ml BrdU的抗性细胞亚系。银染NORs (Ag-NORs) 的分析表明, 除了一个抗性细胞亚系外, 其他3个亚系NORs的活性都明显地被BrdU所抑制, 即主要是表现在细胞Ag-NORs数和携带Ag-NORs染色体数的明显减少。不同BrdU抗性亚系NORs活性被抑制的程度可有很大的差异。在培养基里除去Brd U后, 抗性细胞被BrdU抑制的NORs活性可以逐步得到恢复, 但其恢复的速度显然比Wg3h细胞缓慢得多。抗性细胞NORs活性受抑制, 与Wg3h细胞一样, 是由于BrdU 毒性的缘故。

关键词

分类号

Study on Characteristics of BrdU-resistant Cells II .NORs Activities of Four BrdU-resistant Sublines and Mechanism of the NORs Suppression Caused by BrdU

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Abstract

Two 30ug BrdU/ml-resistant sublines and two 60 ug BrdU/ml-resistant sublines are induced from a Chinese hamster cell line Wg3h by both one-step and two-step selections. It is indicated in Ag-NORs analysis that the NORs activity of all the BrdU-resistant sublines.except one, are significantly suppressed,i.e., the averages of the AgNORs number per cell and number of the chromosomes bearing Ag-NORs per cell are decreased obviously. The degree of the suoression for different BrdU-resistant sublines varies very much. It is clear that not all the high BrdU concentration-resistant sublines can resist the suppression of the NORs activity caued by BrdU. After washing out the BrdU outside the cells, the suppressed NORs activity of the BrdU-resistants can be gradually restored, but the recover speed is far lower than that of Wg3h cells. The suppression of the NORs activity of the BrdU-resistants should be due to BrdU toxicity.

Key words

DOI:

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扩展功能

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