

## 限制性内切酶诱发的姊妹染色单体互换\*

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摘要 用限制性内切酶PstI, SalI, PvuII和BamHI处理CHO细胞后, 发现其SCE率升高, 与对照相比, 前三种酶具有显著性差异。但这些酶诱导SCE的效应与其致染色体畸变效应相比则较弱, 提示引起DNA双链断裂的限制性内切酶不是SCE的强刺激物。实验结果表明, BrdU取代胸苷不能消除限制酶对底物DNA的识别及裂解。

关键词 [限制酶](#), [姊妹染色单体互换](#), [中国地鼠卵巢细胞](#)

分类号

## Sister Chromatid Exchanges Induced by Restriction Endonucleases\*

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### Abstract

Induction of sister chromatid exchanges by restriction endonucleases Pst I, Sal I, Pvu II and Bam HI was studied in CHO cells. The results showed that all the enzymes used could increase SCE rate or CHO cells. Comparison of their SCE-inducing and chromosome aberration-inducing effects revealed that the latter was more remarkable. This means that DNA doublestrand breaks are not strong stimuli for the production of SCE. The results also demonstrate that the effects of restriction endonucleases on DNA are not cancelled after substitution of thymidine by 5'-bromodeoxyuridine in DNA.

**Key words** [Restriction endonucleases](#) [SCE](#) [CHO cell](#)

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