A Method to Inhibit the Basal Level Expression of the pGEX Expression Vectors. HUANG Peng, MIAO Shi-ying, WANG Lin-fang (*National Key Laboratory of Medical Molecular Biology, Institute of Basic Medical Sciences, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing* 100005, China).

Abstract A recombinant expression plasmid was constructed by inserting the cDNA fragment encoding human sperm membrane protein (HSD Ⅱ) into pGEX vector. High level expression of the fusion protein was observed in the DH5α bacteria transformed with the recombinant pGEX vector in the absence of IPTG as well as after IPTG induction according to PAGE detection. A simple and valid method was recommended to minimize the basal level expression without IPTG induction: a plasmid pREP4 carrying LacⅠ gene was cotransformed with the recombinant expression plasmid into DH5α, and the basal level expression of the fusion protien was inhibited significantly while the presense of pREP4 did not affect overall expression following induction with IPTG.

Key words expression, induction, LacⅠ

凝胶干板的制作保存与拍摄

聚丙烯酰胺凝胶干板的制作是电泳中常遇到的一个难题，许多学者曾对此进行过研究，其方法各具特色，但效果不甚理想．通常使用GB21°全色胶卷直接拍摄凝胶板，其区带与背景之间反差小．笔者在实验中将聚丙烯酰胺凝胶板微缩后制成干板，方法较为简单，效果也好，现介绍如下：

将凝胶板在自来水中清洗，除去浮色．接着进行三级脱水：一级脱水用2份工业酒精加1份水；二级脱水用3份工业酒精和1份水；三级脱水用95%的酒精，此时凝胶板变为乳白色．根据凝胶板处理的过程不同，干板可分为透明和非透明两种．在一块大小适中的玻璃板上涂抹一层甘油，制作透明干板甘油浓度为70%，非透明干板为90%，铺上玻璃纸，再涂抹甘油，然后将凝胶板铺在玻璃纸上，赶尽气泡（此时拍照为宜）．如果是制作透明干板需用毛笔蘸少许水均匀涂在凝胶板上（注意不可蘸多，否则凝胶板吸水不均匀）．最后蒙上一层玻璃纸，赶尽气泡，四周用垫条和夹子固定，2天后取下，用透明胶带将干板编号贴于干板下方一角处，可长期保存．

用此法制作的微缩凝胶干板平整、美观、体积小、容易收藏，并且染色区带与背景反差大，便于拍摄出理想的照片．

在拍摄凝胶电泳图谱时，选取涤纶彩色校色滤色片（影星牌，上海影星色光厂生产）置于照相机镜头前，进行校色拍照．一般应按以下原则选取滤色片：红色电泳区带选用绿色或青绿色滤色片；蓝紫色区带选用黄色滤色片；褐色区带选用绿色或青蓝色滤色片．滤色片色彩或深浅不同，可叠加使用．使用滤色片效果优于直接拍摄．

[王 莹 河南职业技术师范学院 新乡 453003]