been recently introduced. For highly repetitive DNA probes the hybridization time and the number of washing steps were reduced considerably by formamide or equivalent denaturing chemical agents. Due to low stringency conditions major and minor binding sites of the probes showed visible hybridization signals well suited for quantitative image-screening. The discrimination of minor and major binding sites to surface of glass slide was possible by automated image-processing. With respect to the optimization it was necessary to verify two sensitive parameters (hybridization time and temperature, spotting buffer) of the given microarray protocol. By comparation of several candidate conditions, the optimized standard protocol was constructed.

Key words optimization, cDNA chip, DNA fixation, glass slide

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小经验介绍

微波在蛋白质电泳染色和脱色中的应用

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经过实验摸索和实践，我们发现一种利用微波处理在10 min内可使聚丙烯酰胺凝胶染色及脱色完成的方法.

a. 将电泳后的凝胶(厚度0.75 mm)取出，置于培养皿中用蒸馏水冲去残留缓冲液. b. 加入染色液将凝胶完全浸泡其中，放入微波炉内高火档照射20 s，停留1 min，再照射10 s. c. 取出染色液(回收还可再用2次)，用蒸馏水冲去凝胶上残留染色液. d. 加入脱色液，高火档照射20 s，取出脱色液，然后加入新鲜脱色液再照射20 s，重复5~6次，直至背景清晰透明.

实践中我们认为应注意以下几点：a. 盛试剂的培养皿上面应盖一稍大的培养皿，防止加热时试剂蒸发损害微波炉. b. 微波照射后试剂温度一般控制在45~50℃，以防温度太高损坏凝胶. c. 使用脱色液应少量多次.

通过实际应用，我们发现这是一种快捷、方便、灵敏度高的方法，可以在实验室推广和应用.