



中文标题 检索 跨刊检索

## 低温处理对半夏悬浮培养细胞同步化的影响

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中文摘要: 目的: 研究低温处理对半夏悬浮培养细胞同步化的影响, 找出适合半夏细胞同步化条件。 方法: 以三叶半夏疏松愈伤组织为材料, 采用正交试验设计方法研究低温处理对半夏悬浮培养细胞同步化的影响, 并对所得数据进行极差分析和方差分析。 结果: 低温处理后, 细胞分裂指数均有不同程度的提高, 其中温度为8℃时细胞分裂指数大于其他2组温度处理后细胞的分裂指数, 而在8℃低温条件下, 处理24 h, 恢复36 h, 同步化效果最好, 分裂指数可达11.3%。 结论: 低温处理可以明显影响半夏悬浮培养细胞的同步化, 有效提高其分裂指数。

中文关键词: 半夏 悬浮培养 低温处理 同步化

### Effect of low temperature on cell synchronization division in suspension culture cells of *Pinellia ternata*

Abstract: Objective: To study the effect of low temperature on cell synchronization division in suspension culture cells of *Pinellia ternata*, in order to find a proper condition for cell synchronization. Method: The loosened calli of *P. ternata* were used as materials. The effect of low temperature on cell synchronization division was studied and researched in suspension culture cells by the method of orthogonal experiment, the obtained experimental data was compared and analyzed through the analysis of range and analysis of variance. Result: After the low temperature treatment, the cell division index was increased in various degrees, among the total results, when the temperature was set at 8℃ for 24 hours and then recovered for 36 hours, the effect was the best, the mitotic index was significantly increased to 11.3%. Conclusion: The low temperature could obviously influence the cell synchronization division in suspension culture cells of *P. ternata*, and the mitotic index was efficiently increased.

keywords: *Pinellia ternata* suspension culture low temperature treatment synchronization

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