

动物科学

## 七日龄小鼠生精小管及睾丸的冷冻保存<sup>\*</sup>

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**摘要** 在DMEM培养液中添加10%小牛血清(NBS)及10%二甲基亚砜(DMSO)作为冻存液, 慢速降温冷冻, 液氮保存7日龄小鼠生精小管及完整睾丸, 37℃水浴复苏, 0.25%胰蛋白酶消化成单细胞, 台盼蓝染色测定细胞复苏率。结果: 生精小管及完整睾丸冷冻复苏后细胞复苏率分别为87.3%及85.0%, 两复苏率之间无显著差异, 与生精小管单细胞对照组相比也无显著差异。冷冻损失率分别为10.1%及12.4%。结果表明, 对于7日龄小鼠生精小管及完整睾丸, 以10% DMSO为抗冻剂, 慢速降温冷冻, 液氮保存, 37℃水浴复苏是一种适宜的冷冻保存方法。

**关键词** [冷冻保存](#); [生精小管](#); [睾丸](#); [小鼠](#)

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## Cryopreservation of Seminiferous Tubules and Whole Testes of Seven-day-old Mice

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### Abstract

Seminiferous tubules and whole testes of 7-day-old mice were slowly frozen in cryopreservative solution composing of 10% dimethylsulphoxide, 10% newborn bull serum and 80% DMEM medium, stored in liquid nitrogen, thawed in a 37℃ water bath, and the recoveries were measured by trypan blue exclusion staining after testicular cells dissociated by 0.25% trypsin. The recoveries of seminiferous tubules and whole testes of 7-day-old mice were 87.3% and 85.0%, respectively. There was no significant difference between the two recoveries, and also showed no significant differences compared with single cell control. The cell loss rates after freezing/thawing were 10.1% and 12.4%, respectively. The results demonstrate that a two-step slowly freezing procedure is a suitable procedure for cryopreservation of 7-day-old mouse seminiferous tubules and whole testes in 10% DMSO freezing solution.

**Key words** [cryopreservation](#) [seminiferous tubule](#) [testis](#) [mouse](#)

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