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哺乳动物早期胚胎体外发育阻滞的研究进展 Progress on Developmental Block in Early Stage of Mammalian Embryos Cultured in vitro

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摘要　哺乳动物胚胎在体外培养中普遍存在早期发育阻滞的现象.对此,人们用形态学、生物化学、分子生物学、显微操作等手段开展了磷酸、葡萄糖、次黄嘌呤和细胞质因素对早期胚胎发育阻滞的影响的研究.本文综合分析了共培养系统的优缺点.说明了采用完全成分已知的培养液对进行有关研究的必要性.列出了有效运用于克服小鼠、大鼠、仓鼠、兔、猪、羊、牛、猴等动物早期胚胎阻滞的成分已知的培养液的名称。

Abstract:The early embryo developmental block is a common phenomenon in mammal when embryos are cultured in vitro.Many studies of phosphorus,glucose,hypoxanthine and cytoplasmic factors on early embryo developmental block carried out by different methods such as morphology,biochemistry,molecular biology and micromanipulation have been reviewed.The merit and shortcoming were analyzed and the necessity of using simple or components limited media overcoming early embryo developmental block were also reviewed.Media that have been shown effective in overcoming early embryo developmental block in mouse,rat,hamster,rabbit,pig,sheep,cattle and monkey were listed.

关键词　二细胞阻滞　葡萄糖　磷酸　阻滞机理　共培养　简单培养液 Key words　2-cell block　phosphorus　glucose　mechanism of embryo developmental block　co-culture　simple media

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Abstract

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