題名:臨床牙科寶鑑: 玻璃離子體-續論, Chapter 10:14-15

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摘要:Imprinted genes show monoallelic expression from either the paternal or maternal genome (1,2), and their regulated expression is usually associated with the existence of parentally differentially methylated regions on genomic DNAs (3,4). Because of this, essentially two different approaches, using either cDNA or genomic DNA as starting material (5) have been developed for systematic isolation of imprinted genes. In this chapter, we describe a subtraction-hybridization method (6-8) as an example of the former approach. Both parthenogenetic embryos and androgenetic embryos (9,10) are the most suitable biological materials for the subtraction or detection of imprinted genes. However, it is difficult to obtain a large amount of such special materials because only a small number of these embryos develop to the d 10 stage (9,10). Thus, polymerase chain reaction (PCR)-based techniques, such as the differential display (11-13) and subtraction-hybridization methods, are necessary to accomplish this experiment. The subtraction-hybridization method has been successfully applied for isolation of both paternally expressed genes (Pegs) (6,14,15) and maternally expressed genes (Megs) (7), and it allows cDNA libraries to be made from a very small amount of biological material. We are convinced that this method can be applied in many fields of biological science.