터 5일까지 배양액내 산소 농도를 측정한 결과, 5% 산소환경의 배양액은 4.3±0.4 mg/l, 20% 산소환경의 배양액은 6.89±0.3 mg/l로 유의한 차이를 보였다 ($p<0.05$).

3. 생쥐의 전핵시기 배아를 배양하면서 24시간 간격으로 120시간까지 관찰한 결과 포배기까지의 발달율은 5% 산소 환경에서 59.1% (78/132), 20% 산소환경에서 34% (49/144)였으며, 부화율은 각각 40.9% (54/132), 24.3% (35/144)로 5% 산소환경에서 높은 발달율을 보였다 ($p<0.05$). 또한 포배시기 배아의 할구수는 5% 산소환경에서 97±11.9, 20% 산소환경에서는 72±9.4로 5% 산소환경에서 유의하게 높았다($p<0.05$).

4. Quanti-cell 700 (Applied Imaging Co., UK)으로 측정한 배아내 산소유리기의 상대적 강도는 5% 산소 환경에서 28.9±1.5, 20% 산소환경에서 53.2±3.7로 5% 산소환경에서 유의하게 낮았다 ($p<0.05$).

9 Application of Chromosome Microdissection and Fluorscence in-situ Hybridization (Micro-FISH)

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Meltzer et al. (1992) and Guan et al. (1994) have developed a novel procedure for the rapid generation of region-specific genomic clones from dissected chromosomal DNA using a degenerate oligonucleotide primed polymerase chain reaction (DOP-PCR). Their simplified method also offered the advantage that region-specific painting probes could be used for cytogenetic alnalysis. Micro-FISH, a term they introduced, made it possible to extend the limits of conventional cytogenetic analysis by providing band-specific probes for the analysis of unknown chromosomal regions such as marker chromosomes. Recently, Speicher et al. (1996) have developed epifluorescence filter sets and computer software for the detection and discrimination of 27 different DNA probes hybridized simultaneously, and their DNA probes were generated by microdissection and subsequent PCR amplification and labelled by nick translation.

Although the FISH fields has been extensivery used in human cytogenetics and cancer biology studies, its use is rather limited. Hence, it is important to develop an efficient and rapid method for the generation of whole chromosome painting probes. (WCPs) or chromosome arm painting probes (CAPs). However, we describe here the applicable method of a strategy for the rapid construction of the painting probe and their corresponding DNA libraries were developed by chromosome microdissection, FISH, PCR amplification, microcloning and DNA sequencing.