

KULTUR PRIMER FIBROBLAS: PENELITIAN PENDAHULUAN

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Abstrak

Kultur sel fibroblas banyak digunakan untuk penelitian proses penyembuhan luka dan penuaan kulit. Metode ini digunakan untuk melihat perkembangan sel, proliferasi kinetik seluler, serta biosintesis komponen matriks ekstraseluler. Penelitian pendahuluan ini dilakukan untuk optimasi teknik laboratorium serta berbagai kendala yang didapatkan saat kultur fibroblas. Kultur primer fibroblas dibagi menjadi 2 jenis sampel yaitu sampel yang berasal dari embrio mencit usia 7,5–9,5 hari, dan kulit pasien keloid. Sampel dari embrio mencit dilakukan kultur primer dengan metode *dissociated fibroblast*. Sampel jaringan keloid dan kulit normal dikultur dengan metode *skin explant*. Fibroblas yang berasal dari kultur primer embrio mencit tumbuh baik sehingga dapat dilakukan subkultur dan disimpan di dalam nitrogen cair suhu -198°C . Fibroblas yang berasal dari sampel keloid pertama tumbuh sesuai pola pertumbuhan fibroblas, namun pada sampel kedua terdapat kontaminasi *Paecilomyces sp.* yang merupakan salah satu jenis jamur kontaminan. Sel fibroblas mudah untuk dikultur karena memiliki kemampuan tumbuh dan melekat yang tinggi serta regenerasi cepat, namun penelitian lebih lanjut untuk optimasi teknik kultur dan pencegahan kontaminasi masih dibutuhkan sehingga sel dapat tumbuh baik.

Kata kunci: kultur fibroblas, *skin explant*, *Dissociated fibroblast*, kontaminasi

Abstract

*Fibroblast cell culture method has been used for wound healing and skin aging studies. This method was used for cell development imaging study, cellular kinetic proliferation and extracellular matrix component biosynthesis. This preliminary study was done for laboratorial technic optimization as well as problems appeared in fibroblast culture. Fibroblasts primary culture was divided into 2 type of samples, from 7.5-9.5-day-mice embryo and keloid-patient skin. Primary culture with dissociated fibroblast method was done for mice embryo sample. Keloid tissue sample and normal skin were cultured with skin explant method. Fibroblasts that were taken from mice embryo primary culture grew well therefore subculture can be done and kept in -198°C liquid nitrogen storage. Fibroblasts that were taken from first keloid sample grew according to fibroblast growth pattern, but, there was contamination with *Paecilomyces sp.* which was one of the contaminating fungi. Fibroblast cells are easy to be cultured as they have growth ability and high adhesion capability as well as rapid regeneration, but, further study for cultured technical optimization and contamination prevention are still needed therefore the cells can grow well.*

Keywords: *fibroblast culture, skin explant, dissociated fibroblast, contamination.*

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