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Perbedaan Kadar Epidermal Growth Factor pada Selaput Amnion Tanpa Preservasi dan dengan Cryopreservation (Penelitian Eksperimental Laboratoris)

Abstrak :

The purpose of this study is to measure the difference of epidermal growth factor concentration in fresh amniotic membranes and cryopreservation amniotic membranes in 16 amniotic membranes. Each amniotic membrane was divided into two parts. The first part was extracted in fresh forms and the second part underwent cryopreservation with glycerol 50% and was stored at –80° C during 1 month before extraction. Both parts of the membrane were extracted using ultrasonic disintegrator and concentration of EGF was measured from the obtained extract using ELISA method. The average concentration of EGF in the fresh amniotic membrane was 122.76 ± 11.59 pg/g while the average concentration of EGF in the amniotic membrane underwent cryopreservation was 99.34 ± 9.49 pg/g. Average degradation of EGF concentration due to cryopreservation is 18.49% ± 10.20%. EGF concentration in fresh amniotic membrane is significantly higher than the EGF concentration in amniotic membrane underwent cryopreservation (p = 0.000). Degradation of EGF concentration due to cryopreservation at 95% confidence interval is 12.33% to 24.66%.

Keyword :

epidermal growth factor, amniotic membrane, cryopreservation, ultrasonic disintegrator, ELISA