

Serum-free cryopreservation of various Chinese hamster ovary cells

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Generally, cryopreservation of cell line is performed with medium that was supplemented with dimethyl sulfoxide (DMSO) at concentration of 5–20% and serum at concentration of 10–20%. In this work, to investigate effect of serum-free cryopreservation, various cell lines were frozen in three serum-free media without serum but used only a cryoprotectant, DMSO 10%. These experiments were used in-house formulated serum-free media (SFM) and commercially available serum-free medium and they were compared. When frozen cells were thawed, their viability reached over 90% and continuous cell growth was observed. These results provide that serum-free cryopreservation is available to store cells in serum-free condition.