

NEW

Freezing medium from Biochrom AG: Biofreeze

The new serum-free freezing medium Biofreeze contains no dimethyl sulfoxide (DMSO), which is toxic to cells. The function of DMSO is replaced by a less toxic anti-freezing agent. Biofreeze is suitable for mammalian cells or to enable tissue reconstruction. It supersedes conventional freezing media because Biofreeze creates comparable cell viability after thawing. Biochrom AG verified this for different cell lines (see also fig. 2).

Use Biofreeze as you do with your current freezing medium. Our recommendation: As the thawing time is of vital importance for a successful revitalization of the cells, the cell substance, and freezing medium should not exceed a volume of 0.5 ml.

Biofreeze – all benefits at a glance:

- DMSO-free
- serum-free
- no supplements of animal origin
- sterile

Product	Cat. No.	Unit
Biofreeze freezing medium DMSO-free Storage temperature: +2 – +8 °C	F 2270	25 ml

Cell viability with Biofreeze

The condition of the cells before freezing, the medium used with the anti-freezing agent, the cooling rate, the quality of the cryogenic vials and the constant storage temperature – these are all vital to cell viability after thawing. Cells must be frozen slowly, but thawed quickly. Too much freezing medium prolongs the thawing time. Biofreeze supersedes conventional freezing media because it creates comparable cell viability after thawing.

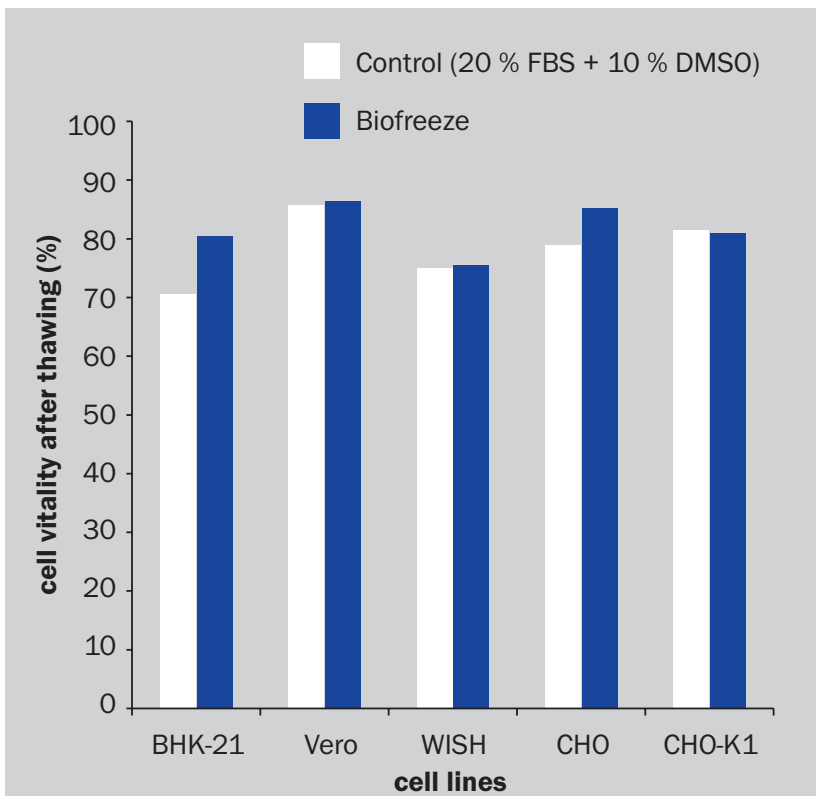
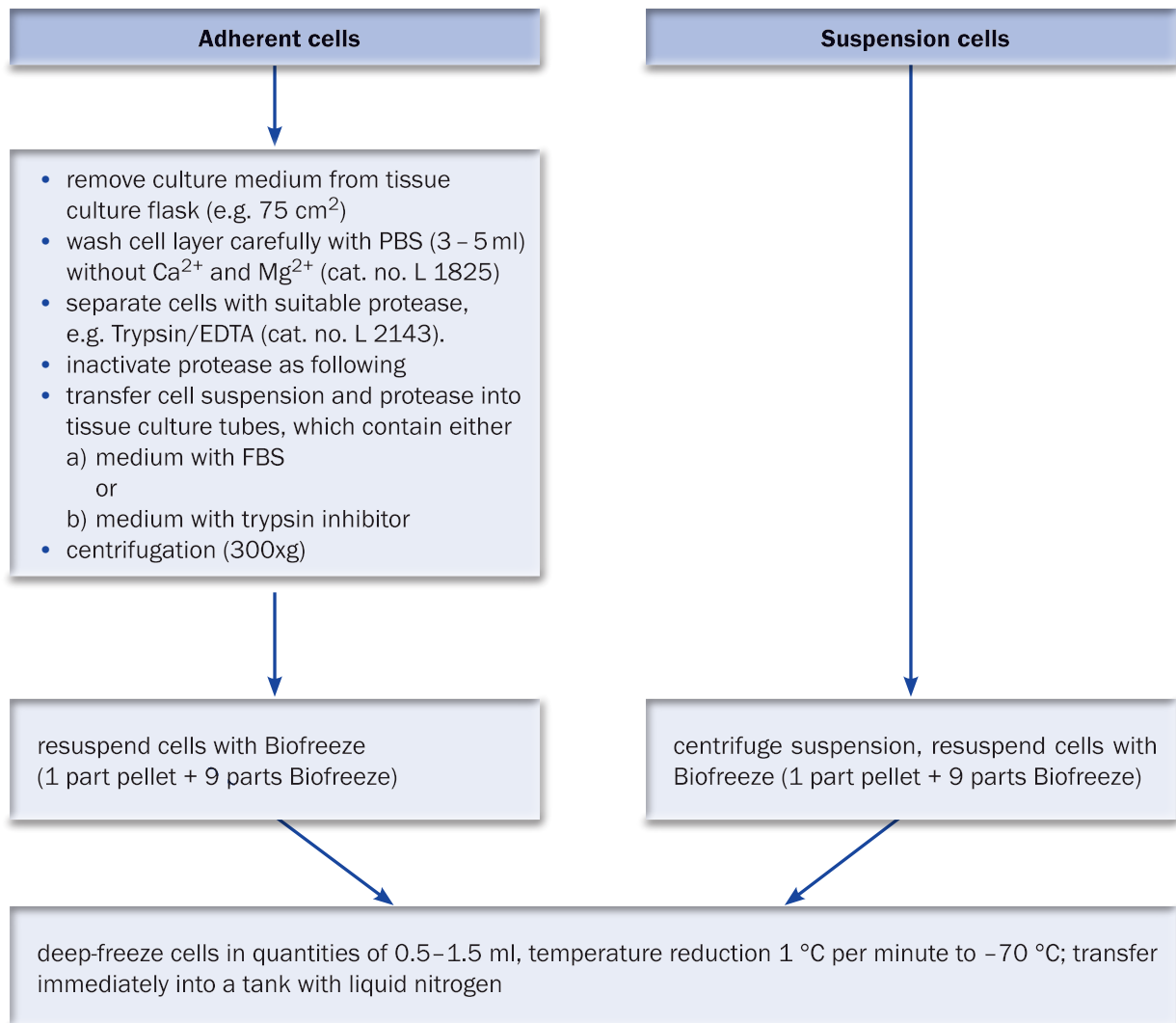


Fig. 2: Examination of cell viability after re-thawing cells with different cell lines (measured with the Cell Viability Analyzer Vi-Cell™ from Beckman Coulter)

Recommendation:**Recommended cell count**

- suspension cells: 5 x 10⁶ cells/ml (1)
- adherent cells: 1 x 10⁶ cells/ml (1)
- very small cells: 1 x 10⁷ cells/ml (1)
- 2 – 4 x 10⁶ cells/ml, 1 ml each per cryotube (2)
- allocate 5 x 10⁶ - 2 x 10⁷ cells/ml, in 1- or 2 ml-cryotubes (3)
- 1 x 10⁶ cells/ml in 1 ml-portions (Biochrom AG)

References:

- Leitfaden f. d. Zell- u. Gewebekultur; Hans Jürgen Boxberger, Wiley-VCH
- Zukunftstechnologie Tissue Engineering; W .W. Minuth, R. Strehl, K. Schumacher, Wiley-VCH
- Tierische Zellkulturen, R. Ian Freshney; Walter deGruyter/Culture of Animal Cells: A Manual of Basic Technique, 4th Edition, Wiley