Lifeblood Medical, Inc.
www.lifebloodmedical.com

Lifor®

Composition for Maintaining Organ and Cell Viability

- ⇨ Organ Preservation and Transportation
- ⇨ Cell Culture, FBS Replacement
- ⇨ Tissue Preservation & Transportation

客戶見證：
最厚達 7 cm 的皮膚組織，取下後直接浸泡 Lifor®，置於 4。C，最長放置 7 星期，細胞維持良好活性，使 primary cell culture 效果接近新鮮處理的 sample，細胞存活率大大提升！！

Lifor® 組織保存使用方法：

- 用量預估為每 1gm 組織使用 10ml Lifor 浸泡
- 避免以生理食鹽水沖洗細胞, 組織, 腫瘤組織, 或其他性質的細胞樣品,直接將樣品浸泡於 Lifor
- 不限定保存溫度, 及容器

包裝規格	貨號
100ml	AEDTNC-100
500ml	AEDTNC-500
1000ml	AEDTNC-1000

- ◆ Animal/Human Component Free
- ◆ Low Potassium
- ◆ Dextran Based
- ◆ Liposome Complex
- ◆ Nutrients
- ◆ GMP Validated Manufacturing
- ◆ Batch Consistency Lot-to-Lot
- ◆ US Patent No 7,220,538

- 以微脂體包覆而成的奈米粒子攜帶 O_2 及細胞所需之營養成分
- 提供細胞自行修復的條件
- 不含動物血清及蛋白,減低感染及污染的機率
- 不含具細胞毒性的成分,如 DMSO

Composition of Lifor®: Physiological, oxygen enriched solution, inorganic salts, amino acids, vitamins, adenosine, cholesterol, glucose, dextrane 70, growth factors (EGF, VEGF, HGF).

長時間維持細胞活性

應用

- ◆ 實驗用途之器官儲存,室溫運送,並在移植後重現器官功能（如心臟, 肝臟,腎臟）
- ◆ 適合長時間 4 ˚C 或 25 ˚C 儲存,運送活細胞檢體,方便後續細胞培養, 酵素活性測試及基因表達分析 如 mouse epididymal sperm, peripheral blood stem cells, phgranulocytes, skeletal muscle, RNA extraction.
- ◆ 提高 primary culture 細胞存活率
- ◆ 冷凍保存特定癌細胞 (single cells and spheroids),建立癌細胞庫

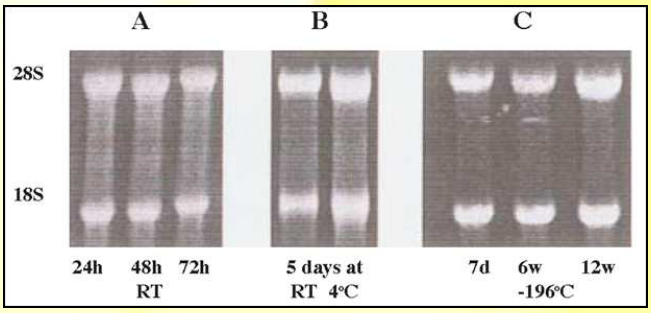

Figure 1: 保存在 Lifor® 中不同的保存時間及溫度的癌組織抽取 RNA,皆沒有 RNA 降解的現象 : **A.** PC-3 cells for up to 72h at RT, **B.** Lung Cancer tissue 5 days at RT and 4oc, respectively and **C.** PC-3 cells for up to 3 months at -196oc. RNA did not show any egradation.

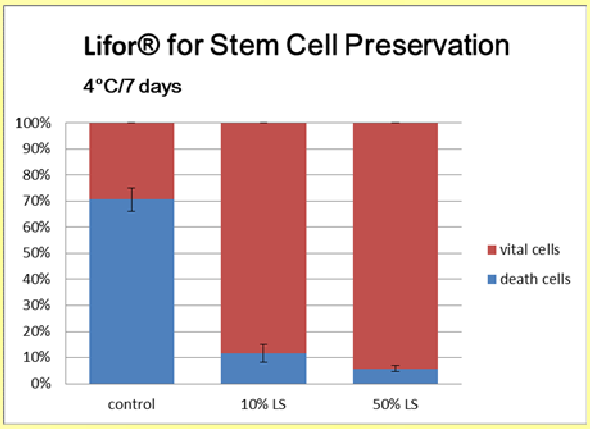

Figure 2:使用 10% 及 50% 的 Lifor® 保存周邊血液幹細胞, 可在 4°C 下保存 7 天並維持存活率高達 88.4 % 及 94.2%

更多器官, 組織及細胞保存實例請參考以下文獻：

10h Preservation of Guinea Pig Isolated Hearts Perfused at Low Flow with Airsaturated Lifor® solution at 26°C: comparison to Viaspan®, David F. Stoe, Amadou K.S. Camara, James S. Heisner, Mohammed Aldakkak, David R. Harder, American Physiological Society, 2007, vol. 62

Preservation of Hearts with Air-saturated Lifor Solution at Room Temperature for 20 Hours, D.F. Stowe, M. Aldakkak, J.S. Heisner, AKS Camara, D.R. Harde, *The Journal of Heart and Lung Transplant,* September 2008

Preservation of Hearts with Air-saturated Lifor Solution at Room Temperature for 20 Hours, D.F. Stowe *et al*, *The Journal of Heart and Lung Transplant,* September 2008

A Novel Method for Generating Xeno-Free Human Feeder Cells for Human Embryonic Stem Cell Culture, G. Meng, et al., Stem Cells and Development, October 2007

Cellular Incorporation Into Electrospun Nanofibers Retained Viability, Proliferation, and Function in Fibroblasts, John A. van Aalst, et al., SOUTHEASTERN SOCIETY OF PLASTIC AND RECONSTRUCTIVE SURGEONS, 2008

Establishing continuous single cell cultures from primary tumor excisions using as new generation of tumor tissue transport- and culture solution, R.A. Hilger et al.,

Nonfrozen Transport Medium Preserves and Restores Skeletal Muscle Enzymatic Activity and Morphology ,Iren Horkayne-Szakaly, et al., ***The Journal of Histotechnology,*** Vol. 32 No. 2, June 2009.

A comparative study of freezing single cells and spheroids: Towards a new model system for optimizing freezing protocols for cryobanking of human tumours
F. Ehrhart,et al., *Cryobiology*, 2008.

Establishment of a transport system for mouse epididymal sperm at refrigerated temperatures. Takeo T, et al., Cryobiology. 2012 Jun 18.

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