A comparison of the densities of insect cells after cryopreservation and recovery under various conditions

Cryopreserved Sf9, Sf21 and High 5 cells were thawed into medium and incubated in roller bottles (RBs) and/or Erlenmeyer flasks (EFs). Continuous culture control cells were treated in the same way, omitting cryopreservation. The viable cell density was determined by trypan blue exclusion after a 2 day recovery period, and comparisons were made between the densities of cells:

(i) Stored in liquid nitrogen (LN2) and at -80 °C in small aliquots (2x10^7 cells in 1 mL), and at -80 °C in large aliquots (8x10^8 cells in 40 mL), recovery in EFs.

(ii) Recovered in EFs and RBs, after storage at -80 °C in large aliquots (8x10^8 cells in 40 mL).

(iii) Stored at -80 °C in large aliquots (8x10^8 cells in 40 mL) and continuous culture controls, recovery in RBs.
Mean densities ± the standard error mean (S.E.M.) were calculated from a total of 7 observations. Significant differences between the densities of cells stored or recovered under different conditions are indicated in the online resource 2 table by a p-value < 0.05 with a superscript describing the comparison. P-values ≥ 0.05 are not shown.