

# Viabank™

**Effective and successful long term frozen storage of microorganisms**



- Easy long term storage for microorganisms
- Minimal storage space
- Easy retrieval of stock cultures
- Ideal for preserving new strains
- Establish stocks of reference strains for quality control
- Colour coded caps and beads for easy reference
- Convenient colour coded grid on lid for location of vials

## Secure long term frozen storage of microorganisms

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It is often necessary to preserve microorganisms for future study. This may be for reasons of research, clinical investigations, epidemiology, education, or commercial use. Effective preservation requires the organisms to remain viable, free of contamination, and without any alteration of genotype or phenotype. Ideally, the organism should be easy to retrieve and restore to its original condition.

Viabank™ is a convenient, easy-to-use cryoprotection system for the storage of microorganisms. The culture to be preserved is added to the cryopreservative solution in a vial of 20 (approximately) coloured glass beads. After mixing, the excess fluid is removed, and the vial is stored in a freezer. When the organism is required, individual beads are removed from the vial and used to establish a fresh culture.

### Preparation of organisms

Cultures should be allowed to reach late growth or stationary phase before harvesting. Broth cultures are centrifuged, and the pellet removed and added to the Viabank™ vial. For agar specimens, use a sterile inoculating loop (e.g. Microloop®) to scrape several colonies of the organism (sufficient for a 3 to 4 McFarland standard, and add to the Viabank™ vial.

The vial is closed securely and inverted several times to distribute the organisms evenly throughout the suspension. The suspension should now be allowed to equilibrate at room temperature after which the surplus preservative fluid is removed from the vial leaving the beads as free of liquid as possible.

The Viabank™ vials are now ready for freezing.



### References

1. Heckley, R. J., 1978. Preservation of microorganisms. *Advances in Applied Microbiology* 24: 1-53.
2. Simone, F. P., 1992. *Cryopreservation Manual*, Nalge Company, Rochester, New York.
3. Anon., 2006. *Cryogenic Preservation of Bacteria*. ATCC® Connection, 26: 1 & 4.
4. Mazur, P., Leibo, S., & Chu, E., 1972, A two-factor hypothesis of freezing injury, *Experimental Cell Research*, 71: 345
5. Reimer, L. G., & Carroll, K. C., 2003, Procedures for the Storage of Microorganisms. In *Manual of Clinical Microbiology 8th Edition*, ASM Press, Washington DC., 67-73
6. Meryman, H., 1966. Review of biological freezing. In *Cryobiology*, Academic Press, New York, 1
7. Mazur, P., 1966, Physical & chemical analysis of injury in single-celled microorganisms subjected to freezing and thawing. In *Cryobiology*, Academic Press, New York, 214
8. Gherna, R. L., 1981, Preservation In *Manual of Methods for General Bacteriology*, ASM Press, Washington DC, 208-217
9. Feltham, R.K.A., Power, A.K., Pell, P.H.A., Sneath, P.H.A., A simple method for storage of bacteria at -70°C. *J. Appl. Bacteriol.*, 1978, 44, 313-316
10. White, D.J., Sands, R.L., Storage of bacteria at -70°C *Medical Laboratory Sciences*, 1985, 42, 289-290
11. Nagel, J.G., Kunz, L.J., Simplified storage and retrieval of stock cultures, *Applied Microbiology*, 1972, 23(4), 837-838

### Order Details

Product Code	Description	Pack size
MWVIM	VIABANK (Mixed)	80 vials
MWVIR	VIABANK (Red)	80 vials
MWVIY	VIABANK (Yellow)	80 vials
MWVIG	VIABANK (Green)	80 vials
MWVIB	VIABANK (Blue)	80 vials