Abstract

Liquid nitrogen freezing is recommended for long-term preservation of Leptospira serovars. However, there is no standard protocol to follow for this methodology. We herein report a simple procedure to preserve well-characterized Leptospira serovars unaltered for long-term storage in liquid nitrogen. Forty-three (43) leptospira strains, cryoprotected with 10% (v/v) glycerol were rapidly frozen in a dry-ice methanol bath and immediately submerged in liquid-nitrogen. Viability was retained in 100%, 93% and 83% of the frozen cultures after 6, 18 and 54 months, following freezing and storage in liquid nitrogen, respectively. Motility and agglutinability were not altered. These results demonstrate the usefulness of this protocol for long-term storage of genus Leptospira in liquid nitrogen.

Keywords

Leptospira, conservation, liquid nitrogen