

Viability of Two Freeze-dried Strains of *Bifidobacterium* and of Commercial Preparations at Various Temperatures During Prolonged Storage

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Abstract

ABSTRACT: Viability of bifidobacteria in freeze-dried probiotic products at various temperatures during prolonged storage was assessed. *Bifidobacterium longum* 1941 and *B. longum* 536 were freeze-dried and capsules were manufactured. Five commercial probiotic capsule products were also tested. The capsules were stored at -18 °C, 4 °C, and 20 °C. Cell counts were enumerated using MRS-NNLP agar at 37 °C for 72 h under anaerobic conditions at 0, 1, 2, 5, and 8 mo (commercial capsules) and at 0, 1, 2, 5, 8, 11, 14, 17, and 20 mo (laboratory capsules). Storage at 20 °C showed the greatest decline in the viability of bifidobacteria, whereas that at -18 °C showed the least decrease.