

H304

**Protective effects of Sodium Ascorbate and Mannitol  
on *Bifidobacterium* Subjected to Freeze Drying**

Byung Hwa Kang, Jung Ho Hwang, Tae Yong Kim, and Tae Han Kim

Research Laboratories, Ildong Pharmaceutical Co., LTD

The choice of the suspending medium for freeze drying is very important to increasing the survival rate of *Bifidobacterium*. The basal suspending medium(BSM) was 12% nonfat skim milk. The protective effects of some additives such as sodium ascorbate, cysteine, mannitol, adonitol, and yeast extract on the viability of *Bifidobacterium* during and after freeze drying were examined. The addition of 2% sodium ascorbate to BSM increased the viability of *Bifidobacterium* 1.5 times after freeze drying and 2 times during storage. 6% mannitol in BSM did not show any effects on the viability of *Bifidobacterium* after freeze drying, but increased the survival rate of *Bifidobacterium* 2 times during storage.