

Cryoprotectants - The Pillars Of Cryopreservation

Solutes that enhance survival during freezing. Often denoted as CPA, the cryoprotectants play an important role as water modifying agents during freezing stress. They are classified as cell-permeating (DMSO and Glycerol) and non-permeating agents (Trehalose and Sucrose).

DMSO and Glycerol are the two widely used cell permeating CPAs. They penetrate into the cells and prevent ice crystal formation. Both these cryoprotectants are generally used at concentration of 5 – 15% depending on cell type. Glycerol is a CPA of choice for cells which tend to differentiate in presence of DMSO.

Non-permeating CPAs do not penetrate into the cells but they act to improve osmotic imbalance that occurs during freezing. Most commonly used extracellular CPAs are the polysaccharides such as trehalose and sucrose.

It is a rule of thumb that nearly all nucleated mammalian cells require intracellular cryoprotection. Non-permeating CPAs provide additional benefits to modify ice crystal growth in extra-cellular environment but they cannot normally provide primary cryoprotection.



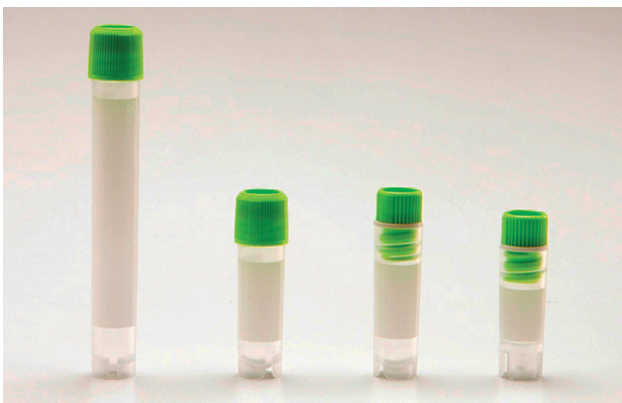
CryoXL™ DMSO (TC450U)

Product Name	Code
Dimethyl sulphoxide (DMSO) Cell Culture Tested	TC185-100ML TC185-250ML
Dimethyl sulphoxide (DMSO), Sterile Cell Culture Tested	TC349-100ML
Glycerol Cell Culture Tested	TC503-500ML TC503-1L
HybridoXL™ DMSO Hybridoma Tested	TC429-100ML
HybridoXL™ DMSO, Sterile Hybridoma Tested	TC433-100ML
CryoXL™ DMSO, Sterile Meets USP and EP Specifications	TC450M-100ML
Glycerol Meets USP and EP specifications	TC503M-500ML TC503M-1L
D-(+)-Trehalose dihydrate Cell Culture Tested	TC177-10G TC177-25G TC177-100G
D-(+)-Trehalose dihydrate Meets USP and EP testing specifications	TC177M-10G TC177M-25G TC177M-100G
Sucrose Cell Culture Tested	TC048-500G TC048-1KG TC048-5KG
Sucrose Meets USP and EP testing Specifications	TC048M-500G TC048M-1KG TC048M-5KG

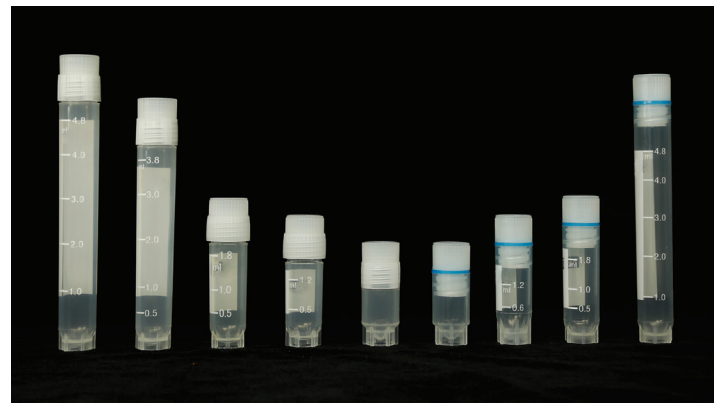
Cryovials

For storage of cells, specimens and solutions in liquid nitrogen and ultra low freezers.

- Internally threaded & externally threaded
- Self standing with frosted area for writing
- Non-pyrogenic, non-toxic, DNase-RNase free



HiQ™ Premium grade cryovials
Gamma sterilized
1.2ml, 2ml, 5ml



E-beam sterilized
0.5ml, 1.2ml, 2ml, 4ml, 5ml

[Refer pricelist for ordering information.](#)