ABSTRACT

IMPROVED BIOMATERIAL FREEZING

The biocontainer of the present invention provides a low cost, simple solution of many of the problems encountered during shipping, freezing and thawing of biopharmaceutical materials. The present invention enables an user to use an indicator to indicate whether the thawing of a frozen biopharmaceutical material in a biocontainer during the cryogenic process is properly carried out, so as to ensure the integrity of biopharmaceutical materials within each biocontainer by using a pre-installed and pre-sterilized temperature sensor and by taking a plurality of measurements of the temperature of the said frozen biopharmaceutical material and actuating the indicator to indicate proper thawing was carried out. A visual indication of the results is also provided.

Fig 4.