

What cells or smaller tissue pieces have already been stored successfully in ChillProtec®?

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When kept in Biochrom AG's new protective medium ChillProtec®, adherent cells, cell suspensions or small tissue pieces are able to remain intact after cold storage. ChillProtec® reduces cell damage caused by cold. Cell functions are retained after cold storage in ChillProtec® better than after cold storage in alternative solutions, such as cell culture media, physiological salt solutions or organ protection solutions. The medium is free of animal components and completely chemically defined. ChillProtec® is a registered trademark and its formulation is proprietary.

ChillProtec® reduces cell damage caused by cold. First results obtained from customers show that cold storage using both media types, ChillProtec® and ChillProtec® plus, works well for cells, such as CHO-K1, chondrocytes, murine embryonic fibroblasts (MEF) or mesenchymal stem cells. The possible cold storage period highly depends on the respective cell type and cultivation or the use of the cells respectively, varying between three days and more than two weeks. Small tissue pieces of human and murine dermis could be stored in ChillProtec® for up to four days.

Please find below an overview on what cells have already been tested and on how long they were successfully stored.

1 Overview and application principle

ChillProtec® is a medium for the cold storage of adherent cells, cell suspensions or small tissue preparations. When kept in this protective medium, cells are able to remain intact after cold storage without any loss of functionality. We offer two variations of the protective medium: ChillProtec® and ChillProtec® plus. There is a slight difference in the composition of both versions. ChillProtec® plus contains a macromolecular additive that has an additional protective effect on certain cell types. The medium is free of animal components and completely chemically defined. The formulation of the medium is proprietary.

product details

parameter	ChillProtec®		ChillProtec® plus	
	F 2283	F 2285	F 2293	F 2295
cat. no.	F 2283	F 2285	F 2293	F 2295
unit	100 ml	500 ml	100 ml	500 ml
storage	+2 - +8 °C			
raw material	chemically defined, proprietary formulation			
intended use	cold storage of cells			
note	for in vitro use only			



Order a free sample of ChillProtec® and ChillProtec® plus at:
info@biochrom.de

Application recommendations for cold cell storage using ChillProtec®:
<http://www.biochrom.de/en/products/cell-culture-media/chillprotecr-new/>

2 Successful cold storage of cells and small tissue pieces in ChillProtec®

ChillProtec® reduces cell damage caused by cold. The first results of tests performed by customers show that the cold storage using both media types ChillProtec® and ChillProtec® plus is well effective for the storage of cells such as CHO-K1 or embryonic mouse fibroblasts (MEF). The possible storage period heavily depends on the respective cell type, cultivation and the usage of the cells. It ranges from three days to more than two weeks. When kept in ChillProtec®, it was possible to store small tissue pieces of human or murine dermis for up to four days.

cells	species	cell count	volume	day	ChillProtec®	ChillProtec® plus
3T3	Swiss albino mouse fibroblasts	80% confluent	6 ml	14	x	x
BHK-21	Syrian golden hamster kidney	1 x 10 ⁶	5 ml	17	x	
CHO	Chinese hamster ovary cells	70% confluent	15 ml for 75 cm ²	3 - 5		x
CHO-K1	Chinese hamster ovary cells	80% confluent	6 ml	14	x	x
CHO-Mem	Chinese hamster ovary cells	80% confluent	6 ml	14	x	x
HaCaT keratinocytes	humane keratinocytes	5 x 10 ⁴	500 µl for 1.9 cm ²	3		x
dermis	mouse	1 cm ²	3 ml	3	x	
Hek293	human embryonic kidney	1 x 10 ⁶	5 ml	3	x	
HeLa	human cervix carcinoma	70% confluent	15 ml for 75 cm ²	3 - 5		x
HeLa	human cervix carcinoma	1 x 10 ⁶	5 ml	3	x	
MDA-MB 468	human breast adenocarcinoma	3 x 10 ⁵	10 ml for 75 cm ²	3		x
MDA-MB-468	human breast adenocarcinoma	2 x 10 ⁶	7ml	3	x	
MEF	embryonic mouse fibroblasts	2 x 10 ⁵	15 ml for 75 cm ²	12	x	
METSA	human mesothelioma cell line	5 x 10 ⁴ - 3 x 10 ⁵	5 ml	28		x
micro vascular endothelial cells	from dermis, human	tissue piece	n/a	4	x	
MSTO-211H	human mesothelioma cell line	5 x 10 ⁴ - 3 x 10 ⁵	5 ml	28		x
turbinate / adenoid tissue	human	20 x 5 x 5 mm	3-5 ml	7		x
NCI-H2452	human mesothelioma cell line	5 x 10 ⁴ - 3 x 10 ⁵	5 ml	28		x
primary fibroblasts	human, from heart and lungs	75% confluent	3 ml	35		x
primary hepatocytes	human	6 x 10 ⁷	50 ml	1	x	
RBL	rat basophilic leukaemia	1 x 10 ⁶	5 ml	3	x	
RBL-2H3	rat basophilic leukaemia	2 x 10 ⁵	5 ml	14		x
SK-N-AS	human neuroblastoma cell line	1 x 10 ⁷	16 ml for 75 cm ²	6		x
SK-N-BE	human neuroblastoma cell line	1 x 10 ⁷	16 ml for 75 cm ²	5		x
SW620	human colon carcinoma	1 x 10 ⁶	2ml	1 and 3	x	
U2O5	human osteosarcoma cells	5 x 10 ⁵	15 ml for 75 cm ²	5	x	
Vero	vervet, kidney	monolayer	5 ml for 75 cm ²	14		x