



Comprehensive overview of cell lines successfully frozen with Bambanker™

Product	Bambanker™ (BB#)	
Distributor	NIPPON Genetics EUROPE GmbH	
Manufacturer	GC Lymphotec Inc.	

The following data was provided by the manufacturer: NIPPON Genetics EUROPE GmbH

Purpose

This application note aims to provide a comprehensive overview of various cell lines that have been successfully cryopreserved using Bambanker™. The data compiled in this document is drawn from multiple published studies, highlighting the efficacy and versatility of Bambanker™ in preserving a wide range of cell lines.

Summary

Cryopreserving mammalian cells is a crucial practice in biological research, providing a safeguard against the loss of valuable cell lines due to contamination or equipment failure. However, challenges can arise when proper freezing equipment is unavailable or when the use of serum, additional wash steps, or complex freezing protocols introduces unwanted variables.

Bambanker™ simplifies the cell freezing process by overcoming these challenges, offering a streamlined solution that reduces variability and enhances reproducibility. To date, Bambanker has been successfully used to cryopreserve more than 70 different cell lines.

To simplify the search for specific cell lines that have been cryopreserved with Bambanker™, we have created this application note, which provides a comprehensive list of all cell lines preserved using Bambanker™ up to this date.



Materials & methods

An analysis was conducted on multiple scientific publications in which Bambanker™ was cited. The search specifically targeted peer-reviewed studies that reported the use of Bambanker™ for cryopreserving various cell lines.

Each identified publication was carefully reviewed to extract relevant data on the cell type preserved with Bambanker™.

Results

Our analysis of peer-reviewed literature identified multiple instances where Bambanker™ was successfully used to cryopreserve various cell lines. To illustrate these findings, the table below highlights one publication per cell line as an example. Each entry includes the specific cell type, along with its DOI and PMID, allowing researchers to quickly reference the studies that document Bambanker's effectiveness across different cell types.

Table 1: Summary of cell lines successfully cryopreserved with Bambanker™.

Cell type	Publication DOI	PMID
Adipose-derived stem cells (ASCs)	10.1089/biores.2013.0029	24083091
Ascites-derived HGSC patient-derived xenograft	10.1186/s13046-022-02570-4	36539830
Astrocytes	10.1007/s44192-023-00050-5	38036718
BJ cells	10.1016/j.isci.2024.109708	38706856
Bone marrow-derived endothelial progenitor cells (EPCs)	10.1016/j.athoracsur.2007.12.006	18355528
Bone marrow-derived mesenchymal stem cells	10.1186/scrt483	25107289
Bovine myosatellite cells	10.2527/jas.2016-0726	28046166
Breast cancer tissue	10.1038/s42003-022-04025-0	36307545
Bronchoalveolar lavage (BAL) fluid	10.1164/rccm.202310-1831LE	38652140
C2C12 myoblast cells	10.1371/journal.pone.0280527	36649291
Cancer-associated fibroblasts (CAFs)	10.1016/j.xpro.2021.100553	34136831
Canine embryonic cells (CEF)	10.1016/j.theriogenology.2005.12.015	16620932
CAR-T cells	10.1038/s41586-024-07300-8	38600391
CD3+ T lymphocytes	0.1007/s00262-012-1375-5	23180014
CHO-K1	10.3389/fphar.2019.00851	31427965
Colon cancer cell HCT116 DLD1	10.1016/j.ymeth.2019.04.010	31026591
Embryonic stem cells (ES cells)	10.1016/j.stemcr.2023.01.007	36801002
Fresh tumor digest (FTDs)	10.1038/s41598-022-12610-w	35595859



Gingiva-derived mesenchymal stem cells (GMSCs)	10.3390/bioengineering5010008	29360752
HEK293T	10.1016/j.cmet.2021.11.001	34800366
Hematopoietic progenitor cells (HPCs)	10.1186/s13024-018-0297-x	30577865
HEK293T	10.1016/j.cmet.2021.11.001	34800366
Hepatoblast-like cells differentiated from human iPS	10.1002/hep4.1111	29404442
Hepatocytes	10.1016/j.cell.2018.11.012	30500539
HFF-1	10.1016/j.isci.2024.109708	38706856
Hippocampal mouse tissue	10.1016/j.neuint.2020.104933	33290798
hiPSCs	10.1016/j.xpro.2023.102073	36853722
hiPSC-cardiomyocyte	10.1152/physiolgenomics.00021.2020	32567507
hiPSC-derived cardiac pericytes	10.1016/j.xpro.2023.102256	37119139
hiPSC-derived NSCs	0.1186/s12987-023-00471-y	37907966
hiPSCs WTC11	10.1101/2024.02.06.579232	38370715
Human adrenal cells	10.1210/clinem/dgac394	35796577
Human breast tissue	10.1038/s41598-018-36927-7	30679562
Human CD34+	10.1038/s41467-023-37379-y	36973261
Human CD34+ HSPCs	10.21769/BioProtoc.4661	37113334
Human embryonic stem cells (hESC)	10.1371/journal.pone.0094231	24718618
Human fetal gonads	10.3390/cells10051214	34065661
Human fibroblast	10.1016/j.bbrep.2021.101169	34786495
Human hematopoietic stem cells	10.1016/j.omtm.2017.11.008	29322065
Human leukocytes	10.3390/cells10040843	33917916
Human liver cancer cell line (HepG2)	10.18433/j3vk5g	26626238
Human nasal epithelial cells	10.1016/j.celrep.2024.114076	38607917
Human ovarian single cells	10.1038/s41467-019-11036-9	31320652
Human peripheral blood mononuclear cells (PBMCs)	10.3892/ol.2023.13967	37559573
Human primary lymphoblast cell line (LCLs)	10.1371/journal.pone.0174317	28328930
Human primary pancreatic ductal adenocarcinoma	10.1016/j.celrep.2019.01.048	30726735
Human primary T cells	10.1126/science.abj4008	35113687
Human tonsillar cells	10.1093/ndt/gfr403	21778277
Human tumor samples from breast, pancreatic, colorectal, and gastric cancer	10.1016/j.xpro.2022.101712	36317178
iPSC-derived Neural Progenitor Cells (NPCs)	10.21769/BioProtoc.3939	33796613
Lung interstitial cells (Mø)	10.3390/biomedicines9091241	34572425
Mesenchymal stem cells (MSCs)	10.1371/journal.pone.0282473	36940196



Mononuclear cells (MNCs)	10.1111/j.1540-8191.2010.01086.x	20626511
Mouse calvarial osteoblasts	10.1073/pnas.0709650104	18077419
Mouse embryonic fibroblasts (MEF)	0.1016/j.theriogenology.2005.12.015	16620932
Mouse splenocytes	10.1016/j.cell.2019.09.035	31668803
Mouse testicular interstitial cells	10.3390/biomedicines10020487	35203696
Mouse tumor brain cells	10.1016/j.xpro.2023.10204	36861832
Mouse-induced pluripotent stem cells (miPSCs)	10.1247/csf.11008	21979235
Murine stromal cells of liver, lung, spleen, and brain	10.1186/s12865-019-0314-z	31533615
Naïve CD4+ T cells	10.1093/cei/uxab012	35020828
Naïve CD8+ T cells	10.1093/cei/uxab012	35020828
Neural stem cells (NSCs)	10.1186/s12987-023-00471-y	37907966
Ovarian cancer models (OCMs)	10.1186/s13073-021-00952-5	34470661
PDL fibroblasts	10.1002/cre2.533	35106969
Pig fibroblasts	10.1111/j.1399-3089.2006.00365.x	17214706
Porcine dental pulp-derived cells (pDPCs)	10.1111/j.1432-0436.2008.00282.x	18565103
Primary bovine uterine epithelial cells (pbUEC)	10.1111/j.1439-0531.2011.01792.x	21535239
Prostate organoid cultures	10.1038/s41467-021-26901-9	34934057
RAW 264.7 (mouse macrophage cell line)	10.1093/jac/dks056	22398649
Scaffold tissue	10.3390/gels6040044	33255558
SKOV-3	10.3389/fphar.2019.00851	31427965
Stromal vascular fraction (SVF)	10.1002/jbm.a.37430	35950648
Uterine tissue-resident macrophages (Mø)	10.3390/biomedicines11030985	36979964

Conclusion

The analysis of scientific publications highlights Bambanker's effectiveness as a cryopreservation medium for a wide range of cell lines. The consistent use of Bambanker™ across various studies demonstrates its versatility, high cell viability, and reliable post-thaw recovery. By providing a simplified cryopreservation process that reduces the need for serum, wash steps, or complex protocols, Bambanker™ proves to be an optimal solution for researchers seeking to preserve their valuable cell cultures.

This application note serves as a helpful guide for selecting Bambanker™ as a trusted cryopreservation medium for diverse cell types.

