









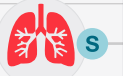



















Biobank storage temperatures

How to use this guide to select storage temperatures and associated products for biobanking:

1. Identify the icon that represents the type of sample you are storing. Examples of each sample type are provided in the icon key.
2. Locate the icon on the storage temperature guide. Refine your selection based on end use and storage time.
3. Use the storage temperature associated with the icon to select from our suggested list of products for biobanking.

Icon key						
						
Whole tissues Organs, biopsies	Cells Peripheral blood mononuclear cells (PBMCs), stem cells, antibody-secreting cells	Dried blood Blood spots on filter paper	Biomolecules DNA, RNA, enzymes, antibodies	Embedded blocks FFPE tissues	Biofluids Whole blood, serum, plasma, saliva, urine, semen, cord blood	Molecules, biopharmaceuticals Steroid hormones, nucleic acids
						<p>S Short-term storage</p> <p>L Long-term storage</p>

Storage temperature guide										
20°C										
4°C										
-20°C										
-80°C										
-150°C and below										
End use	Studies requiring intact tissue samples	Studies requiring viable, functional cells	Applications involving nucleic acids, proteins, cell therapies, and regenerative medicines	Nucleic acid analysis	Protein analysis	Studies requiring structural integrity of biomolecules	Applications involving formalin-fixed, paraffin-embedded (FFPE) samples	Studies of enzymes, antibodies, and other active components	Studies involving biofluid components, protein composition, vitamins, and hormones	Composition studies

Suggested list of products for biobanking				
Thermo Scientific™ products	-150°C and below (cryogenic)	-80°C (ultralow)	-20°C (frozen)	4°C (refrigerated)
Matrix™ ScrewTop Tri-coded Tubes		✓	✓	✓
Nunc™ Universal Tri-coded Tubes	✓	✓	✓	
Matrix™ ScrewTop Tubes with 2D Barcode		✓	✓	✓
Nalgene™ Cryogenic Tubes	✓	✓	✓	
Nunc™ Non-Coded Cryobank Vial Systems	✓	✓	✓	
Nunc™ Coded Cryobank Vial Systems	✓	✓	✓	
Nunc™ Universal Tubes	✓	✓	✓	
Nunc™ Bank-It™ Vial Systems	✓	✓	✓	
Nunc™ Biobanking and Cell Culture Cryogenic Tubes	✓	✓	✓	
CryoBoxes™ Containers	✓	✓	✓	✓
Storage Canes	✓			
Cryoflex™ Tubing	✓			
Matrix™ Latch Racks		✓	✓	✓
Nunc™ Latch Racks		✓	✓	✓
Cryo Vial Closure Color Coders		✓	✓	✓
Mr. Frosty™ Freezing Container		✓	✓	✓
Abgene™ and Nunc™ Sample Processing and Storage Plates		✓	✓	✓
Nalgene™ Bottles				✓
Capit-All™ Flex Automated Decapper	✓	✓	✓	✓
8-Channel Screw Cap Decapper	✓	✓	✓	✓
VisionMate™ HSX High-Speed Barcode Reader	✓	✓	✓	✓
ALPS 5000 Automated Plate Sealer and Seals	✓	✓	✓	
Heat Seals for ALPS Microplate Heat Sealing Instruments	✓	✓	✓	
TSX™ Universal Series ULT Freezers		✓		
CryoPlus™ Storage System	✓			
CryoExtra™ High-Efficiency Cryogenic Storage System	✓			
Locator™ Plus Rack and Box System	✓			
CryoMed™ Controlled-Rate Freezer	✓			
TSG Series Laboratory Refrigerators				✓
TSX™ Series High-Performance -20°C Manual Defrost Freezers			✓	
Cryopreservation Systems	✓			

Learn more at thermofisher.com/biobanking