



# Cold Storage for safe and secure vaccine storage

Thermo Scientific cold storage products are designed and built to support the temperature requirements of pharmaceuticals and vaccine manufacturing, distribution, and storage worldwide.

Our products are designed to deliver safe and reliable vaccine storage while supporting accreditation and quality management standards.



## Proper temperatures for vaccine storage for today and tomorrow's vaccines

Recommended temperature	Vaccine modalities	Existing vaccines	SARS-CoV-2 in clinical trials*
2 to 8°C	Whole Virus	Flu (shot), Polio (shot) MMR, Rotavirus	32 potential vaccines in development
	Chimeric	Yellow fever	
	Sub unit	Shingles	
	Virus-Like Particle (VLP)	HPV	
	Viral Vector	Rabies, West Nile (vet), canine distemper,	
	DNA		
-50 to -20°C			
-70C	mRNA	No commercial vaccines yet	6 potential vaccines that may require combination of -20 and/or -70C storage**

\* Based on Coronavirus Vaccine Tracker, New York Times, 09/15/2020

\*\* <https://www.wsj.com/articles/covid-19-vaccine-race-turns-deep-freezers-into-a-hot-commodity-11599217201>

\*\*\* CDC guidelines are for laboratory refrigerators and freezers. Vaccine & Storage Handling Toolkit, pages 13-14. US Dept of Health and Human Services, Centers for Disease Control, June 2016. No published guidelines on ultra-low freezers for vaccines storage at this time.

## Solutions to Support Vaccine Storage

Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) recommend purpose built cold storage and temperature monitoring to protect vaccine integrity.

Residential or white box products are not designed to maintain the rigid temperature control, stability, and uniformity necessary for vaccines or other medical samples.



Cold Storage Type	TSX high performance refrigerators				Thermo Scientific freezers				Thermo Scientific ultra-low freezers			
	Benchtop	Undercounter	Single door	Double door	Benchtop	Undercounter	Single door	Double door	Benchtop	Chest	Upright	
Capacity	Small		Medium	Large	Small		Medium	Large	Small		Medium	Large
Model size (cu. L.)	52 L	156 L	326, 650, 827	1447	28 L	when you add the MF02: 32 L 5cf: 133	326, 650, 827	1447	28 L	85	422 L, 682 L, 815, 949	
Vials*	<2000	<8000	<20,000	<40,000	<1500	<5500	<28,000	<40,000	<1000	<6500	<30,000	<65,000
Temperature range	2 To 8°C				-20 To -50°C				-70°C			

\*Estimates based on Vaccine A referenced in the COVID-19 Vaccination Program Interim Playbook pages 47, US Dept. of Health and Human Services, Centers for Disease Control. September 2020.

## Digital data logging and wireless monitoring for your vaccine refrigerator or freezer

Thermo Scientific wireless monitoring solutions are designed to safeguard vaccines' integrity by continuously monitoring the critical parameters of refrigerators and freezers and securely data logging.



Find out more at [thermofisher.com/vaccinestorage](https://thermofisher.com/vaccinestorage)

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