

# CoolRack®

Standardized Tube Temperature

Error-Free



## Biozym

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### PROBLEM

- non-uniform ice contact results in variable sample temperature
- disorganized, wet
- tubes shifting and sinking as ice melts
- non-reproducible method



### SOLUTION

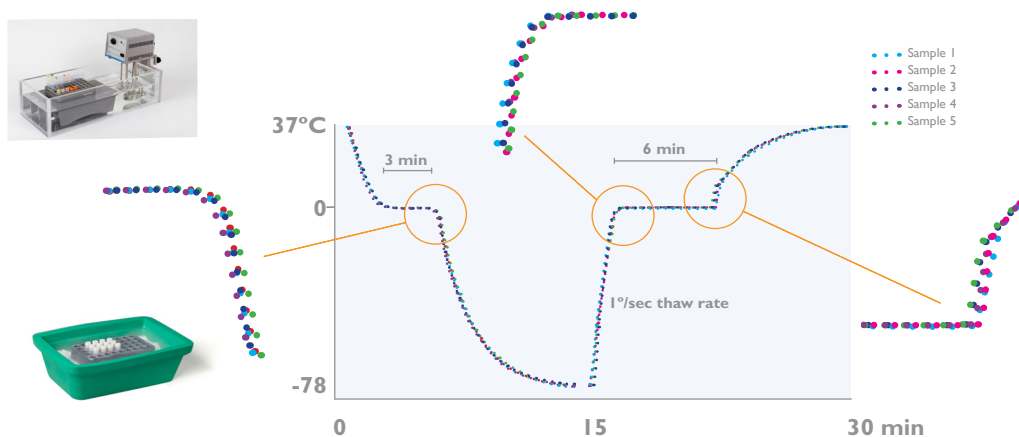
- all samples  $<4^{\circ}\text{C}$  and uniform in temperature ( $\pm 0.1^{\circ}\text{C}$ )
- samples are secure, dry and organized
- all tubes are upright and indexed
- reproducible method

*"After just the first use I was completely hooked! It keeps my tubes stable, very close to 0 degrees and does so for hours. I now have to make sure that the rack is available when I need it as my labmates keep stealing it for themselves!.....I obviously love it!"*  
- Ward K., Genentech

**CoolRack** thermo-conductive tube modules eliminate inconsistencies which occur due to inserting tubes directly into ice, dry ice, alcohol baths, water baths and other common temperature sources. Place the CoolRack module directly onto the temperature source and it will rapidly adapt to that temperature - from  $-196^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ . CoolRack modules ensure temperature standardization of all tubes when cooling, (snap)freezing or heating/thawing samples - within  $\pm 0.1^{\circ}\text{C}$  - and reproducible temperature-sensitive procedures.

Use for a variety of applications including cooling reagents such as restriction enzymes, dNTPs, antibodies and others, alcohol-free dry ice snap-freezing of tissue, virus and bacteria samples, benchtop cryogenic tube sorting in liquid nitrogen, and many others.

## REPRODUCIBLE TEMPERATURE CURVES



### CoolRack CF shows statistically identical cooling profiles and phase transition over five consecutive freeze-thaw cycles

**Performance test:** A temperature probe was placed into a 2ml cryogenic tube containing 1ml of water to monitor the temperature changes. The tube was inserted into a CoolRack CF thermo-conductive module. The CoolRack CF was placed onto a ThermalTray platform in a 37°C water bath and allowed to equilibrate. The CoolRack CF was then removed from the bath and placed onto dry ice and equilibrated to -78°C (0 - 15 minutes). The CoolRack was then returned to the waterbath to re-equilibrate to 37°C (15 - 30 minutes). This experiment was repeated five consecutive times and temperature profiles were recorded.

**Conclusion:** CoolRack CF showed identical cooling profiles and phase transition over five consecutive freeze-thaw cycles.



#### On Ice

CoolRack equilibrates to <4°C within 90 seconds\*



#### On Dry Ice

CoolRack equilibrates to -78°C in 7 minutes\*



#### In Liquid Nitrogen

CoolRack equilibrates to approx. -140°C in 15 minutes\*

\* Average cooling rate from room temperature

### Ordering information:

CoolRack M microcentrifuge tube modules			
210100	BCS-163	CoolRack M6	6 wells, 1.5ml and 2.0ml tubes
210110	BCS-125	CoolRack M15	15 wells, 1.5ml and 2.0ml tubes
210120	BCS-108	CoolRack M30	30 wells, 1.5ml and 2.0ml tubes
210123	BCS-102	CoolRack M90	90 wells, 1.5ml and 2.0ml tubes
210124	BCS-116	CoolRack M96 ID	96 wells, 1.5ml and 2.0ml tubes, row/column indexing
210125	BCS-127	CoolRack M15-PF	15 wells, profile fit, 1.5ml conical tubes
210126	BCS-128	CoolRack M30-PF	30 wells, profile fit, 1.5ml conical tubes
210127	BCS-137	CoolRack M30-PF 500ul	30 wells, profile fit, 500ul conical tubes
CoolRack 15ml and 50ml centrifuge tube modules			
210140	BCS-153	CoolRack 15ml	9 wells, 15ml centrifuge tubes
210141	BCS-154	CoolRack 50ml	4 wells, 50ml centrifuge tubes
CoolRack CF cryogenic tube and FACS tube modules			
210130	BCS-126	CoolRack CF15	15 wells, 12.5mm dia.
210132	BCS-138	CoolRack CFT30	30 wells, 12.5mm dia., locking wells for one-hand open/close
210133	BCS-105	CoolRack CF45	45 wells, 12.5mm dia.
CoolRack PCR tube, strip and plate modules			
210150	BCS-120	CoolRack PCR96	96 wells, profile fit, 0.2ml tubes, strips and plates
210151	BCS-139	CoolRack PCR384	384 wells, profile fit, 384-well plates

Please see [www.biocision.com](http://www.biocision.com) for additional CoolRack thermo-conductive tube modules

Ice Pans			
	BCS-111	Ice Pan, Maxi 9L, Green	For use with ice, dry ice, LN2
	BCS-112	Ice Pan, Maxi 9L, Red	For use with ice, dry ice, LN2
	BCS-113	Ice Pan, Midi 4L, Green	For use with ice, dry ice, LN2
	BCS-114	Ice Pan, Midi 4L, Red	For use with ice, dry ice, LN2
	BCS-211	Ice Pan, Mini 1L, Green	For use with ice, dry ice, LN2
	BCS-212	Ice Pan, Mini 1L, Red	For use with ice, dry ice, LN2

CoolBox 30 System ice-free coolers			
	BCS-130	CoolBox 30, Purple	Accommodates all 30-well CoolRack tube modules. Includes CoolBox with lid, blue cooling (0.5 to 40°C) cartridge, red stage for wet or dry ice, insulator pad.
	BCS-130G	CoolBox 30, Green	
	BCS-130O	CoolBox 30, Orange	
	BCS-133	CoolBox M30	Includes CoolBox 30, CoolRack M30 1.5ml and 2.0ml microcentrifuge tube module
	BCS-134	CoolBox M30-PF	Includes CoolBox 30, CoolRack M30-PF 1.5ml conical microcentrifuge tube module
	BCS-166	CoolBox CFT30	Includes CoolBox 30, CoolRack CFT30 cryogenic tube module with locking wells



#### In CoolBox™ 30 System

Ice-free cooling or freezing with re-usable cartridges

Made in USA.

biocision®

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