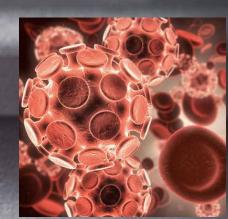
Corning[®] CoolBox[™] and CoolRack[®] Consumable Compatibility Guide

A family of solutions that enables consistent, reproducible, and standardized sample handling



CORNING I CoolRack

CORNING

Corning[®] CoolBox[™] for Consistent and Reproducible Cooling



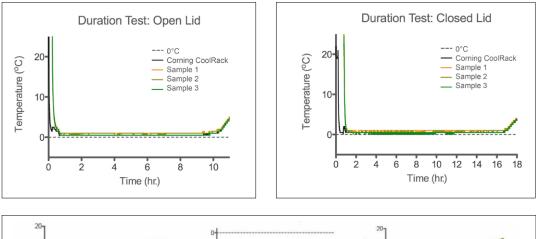
Corning's sample cooling and heating solutions enable consistent, reproducible, standardized temperature control. These solutions address the pitfalls of temperature regulation and reduce contamination risk, keeping your samples cool and stable while you work.

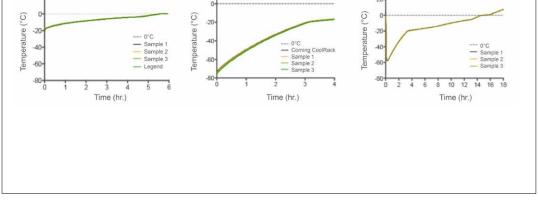
The family of solutions is flexible so you can select the right components for your application and working style. Pair a Corning CoolBox system and Corning CoolRack[®] thermo-conductive modules together for an ice-free cooling option or place a CoolRack on ice, dry ice, or liquid nitrogen in a Corning ice bucket or pan for a more traditional solution.

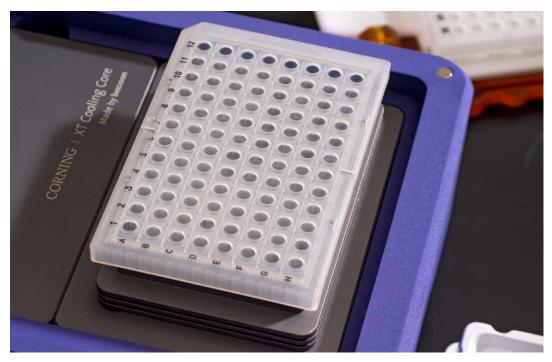
	Corning CoolRack with a Corning CoolBox XT/2XT	Corning CoolRack with a Corning XT Starter	Corning CoolRack in a Corning Ice Bucket
Description	Ideal and versatile benchtop ice-free cooling system that is designed to be compatible with most Corning CoolRacks. These systems offer the longest cooling times.	An open-platform cooler that accommodates most Corning CoolRack modules, making it a versatile and flexible tool for a variety of applications.	A solution that can be used with ice, dry ice, liquid nitrogen, or heat sources while standardizing temperature consistency.
Benefits	 Ice-free, reduces contamination risk Hours of benchtop cooling at consistent temperatures Includes lid, which allows the temperature to stay consistently cold for a longer period of time 	 Use two XT starters side-by-side to accommodate larger size formats 	 Improved temperature stability over ice alone No "drowning" samples No direct contact to ice, which reduces contamination risk
Applications	 Ideal for use under the hood in a where using ice may pose a cont Also ideal for use with temperat ECMs, etc. 	amination risk.	Ideal for benchtop application in a non- aseptic environment that still requires temperature control.
0°C to 4°C cooling	10 hours without the lid	4 hours	N/A
with cooling core	16 hours with the lid		
-20°C freezing with freezing core without the lid	5 hours	5 hours	N/A
-20°C freezing with lid closed	8 hours with the lid	N/A	N/A

Performance Data

Cooling and freezing duration of Corning[®] CoolBox[™] systems with a Corning CoolRack[®] sample module insert.







Corning CoolBox system featured with Corning CoolRack thermo-conductive module.

Corning[®] CoolRack[®] for Stable Temperature Control

Corning CoolRacks are thermo-conductive modules that when placed directly onto a temperature source between -196°C to >100°C, will rapidly equilibrate to that temperature. CoolRack modules ensure ±0.1°C temperature uniformity across all tubes and plates when cooling, snap-freezing, heating, or thawing.

This temperature stability helps reduce the variability originating from tubes, plates, or wells placed directly into ice, dry ice, alcohol baths, water baths, and other cooling sources. Regardless of your desired configuration, you can feel confident that you will keep your sample temperature stable and set your research up for success—right from the start.

Also available from Corning are ThermalTray thermo-conductive platforms, which support Corning CoolRack modules in liquid temperature sources such as melting ice, water baths, and liquid nitrogen. Made of the same highly conductive alloy as Corning CoolRack and Corning CoolSink[®] modules, ThermalTray platforms conduct the source temperature to the CoolRack or CoolSink and, ultimately, to your samples.



Visit **www.corning.com/lifesciences** for more information on Corning CoolRack and Corning CoolSink versatility and performance.

Increased Temperature Consistency

Non-uniform Plate Cooling with Crushed Ice

Final equilibrium well temperature for a 96-well flat bottom microplate in direct contact with crushed ice. Colors represent 0.5°C temperature intervals of the corresponding plate wells from 4.5°C to 7.4°C.

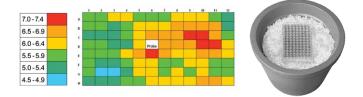


Plate directly on crushed ice, the plate does not reach 4°C in any of the wells and well-to-well temperature is uneven.

Uniform Plate Cooling with Corning[®] CoolSink™ XT 96F Module

Corning CoolSink XT 96F on ice. Colors represent 0.5°C temperature intervals of the corresponding plate wells ranging from 2.5°C to 4.4°C. The white cell represents the well that was fitted with the thermocouple probe.

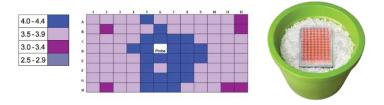


Plate placed on Corning CoolSink module and then placed on ice shows more uniform well-to-well temperature and all wells at or below 4°C. (Blue center plate wells are slightly warmer due to curvature of the underside of the plate). Published in Biotechniques, November 2010.



Build an Ideal Cooling Solution for Your Consumable and Sample Type



Corning[®] CoolBox[™] features a modular design that allows you to build a custom solution specific for your consumable and sample needs.

Build your cooling solution – it's as easy as 1-2-3.

- **1** First select your consumable type.
- 2 Select a Corning CoolRack[®] module based on your consumable and sample quantity.
- 3 Match with the appropriate ice-free Corning CoolBox or ice bucket/pan solution.

Axygen[®] Microcentrifuge Tubes

1. Choose a consumable:

Cat. No.	Description
MCT-150-C	1.5 mL microcentrifuge tubes
MCT-150-C-S	1.5 mL microcentrifuge tubes
MCT-150-L-C	1.5 mL microcentrifuge tubes
MCT-200-C	2 mL microcentrifuge tubes
MCT-200-C-S	2 mL microcentrifuge tubes
MCT-200-L-C	2 mL microcentrifuge tubes



Microcentrifuge tubes listed are Corning suggested compatible consumables; however, Corning CoolRack is also compatible with most major microcentrifuge tube brands. Visit **www.corning.com/lifesciences** to get complete product information.

2. Choose a Corning CoolRack:



Corning CoolRack Cat. No.	Compatible Axygen Microcentrifuge Tube	No. of Wells	SBS Compatible
Round Well	-		
432034	1.5 and 2 mL	6	No
432035	1.5 and 2 mL	6	No
432036	1.5 and 2 mL	6	No
432037	1.5 and 2 mL	15	No
432038	1.5 and 2 mL	15	No
432039	1.5 and 2 mL	15	No
432040	1.5 and 2 mL	24	Yes
432041	1.5 and 2 mL	30	No
432042	1.5 and 2 mL	30	No
432043	1.5 and 2 mL	30	No
432044	1.5 and 2 mL	90	No
V-Well			
432045	1.5 and 2 mL	96	No
432046	0.5 mL	30	No
432047	1.5 mL	15	No
432048	1.5 mL	30	No

	Ice-free Co	orning CoolBox	[Corni	ng Ice Buckets ar	nd Pans		
		Inclused	Amarity							
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Cat. No.	Numbe that c	er of Corning Co an be accomm	oolRacks odated		Number	of Corning C	oolRacks that ca	n be accomm	nodated	
432034	4	4	8	25	25	11	11	2	4	5
432035	4	4	8	25	25	11	11	2	4	5
432036	4	4	8	25	25	11	11	2	4	5
432037	1	1	4	9	9	3	3	1	2	2
432038	1	1	4	9	9	3	3	1	2	2
432039	1	1	4	9	9	3	3	1	2	2
432040	1	1	2	5	5	2	2	-	1	1
432041	1	-	1	4	4	2	2	-	1	1
432042	1	-	1	4	4	2	2	-	1	1
432043	1	-	1	4	4	2	2	-	1	1
432044	-	-	_	1	1	1	1	-	_	-
432045	-	-	_	1	1	1	1	-	_	-
432046	1	-	1	4	4	2	2	-	1	1
432047	1	1	4	9	9	3	3	1	2	2
432048	1	-	1	4	4	2	2	-	1	1

3. Choose a Corning[®] CoolBox[™] Ice-free Solution or a Corning Ice Bucket

Please see page 13 for ice bucket and pan complete ordering information and color options. Corning CoolBox is also available in several color options. Contact your Corning Account Manager or visit **www.corning.com/lifesciences** to view all available options.



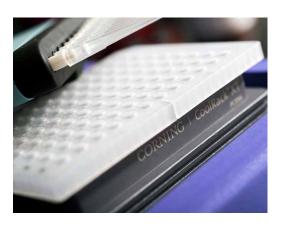
Corning ice buckets and pans

Build an Ideal Cooling Solution for Your Consumable and Sample Type

PCR Tubes, Strips, and Microplates

1. Choose a consumable:

Cat. No.	Description
Tube	
PCR-02-C	0.2 mL tube
Strips	
PCR-0208-CP-C	0.2 mL strip tubes
PCR-0208-C	0.2 mL strip tubes
PCR-0208-AF-C	Strip tubes
PCR-0208-AD-C	Strip tubes
Microplates	
PCR-96-HS-AC-C	96-well microplate
PCR-384M2-C	384-well microplate
PCR-384-C	384-well microplate



Products listed are Corning suggested compatible consumables; however, Corning[®] CoolRack[®] is also compatible with most major centrifuge tube and PCR microplate brands. Visit **www.corning.com/lifesciences** to get complete product information.

2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Compatible PCR Consumable	SBS Compatible
432053	96-well PCR microplate, PCR 12-strip tubes, or microcentrifuge tubes	Yes
432054	Holds 12 1.5 or 2.0 mL microcentrifuge tubes or PCR 6-strip tubes	Yes
432055	384-well PCR microplate	Yes

3. Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free Corning CoolBox				Corning Ice Buckets and Pans					
		Inclusion in a	and the second s				9	1		
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Cat. No.		per of Corning Co can be accommo			Number	r of Corning (CoolRacks that ca	n be accomm	odated	
432053	1	1	2	5	5	2	2	-	1	1
432054	1	1	2	5	5	2	2	-	1	1
432055	1	1	2	5	5	2	2	-	1	1

Centrifuge Tubes

1. Choose a consumable:

Cat. No.	Description
5 mL	
MCT-500-C	Axygen [®] MaxyClear Snaplock microcentrifuge tube
15 mL	
430791	Corning [®] centrifuge tube
352096	Falcon [®] high clarity conical centrifuge tube
50 mL	
430829	Corning conical centrifuge tubes
352070	Falcon high clarity conical centrifuge tube
250 mL	
430776	Corning centrifuge tube



Products listed are Corning suggested compatible consumables, however Corning CoolRack[®] is also compatible with most centrifuge tube brands. Visit **www.corning.com/lifesciences** to get complete product information.

2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Compatible PCR Consumable	SBS Compatible
432060	5 mL centrifuge tube	Yes
432061	15 mL centrifuge tube	No
432068	15 mL centrifuge tube	No
432062	50 mL centrifuge tube	No
432063	250 mL centrifuge tube	No
432064	250 mL Easy Grip storage bottle	No

3. Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free	Corning CoolBox				Corning Ice	Buckets and Pans		
		Income in	and the second sec						
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Number of Corning CoolRacks Cat. No. that can be accommodated					Number of Co	orning CoolRa	cks that can be acc	ommodated	
432060	1	1	2	5	5	2	2	1	1
432061	1	1	2	6	6	2	2	1	1
432068	1	1	2	5	5	2	2	1	1
432062	1	1	2	6	6	2	2	1	1
432063	1	1	2	6	6	2	2	1	1
432064	1	1	2	6	6	2	2	1	1



Build an Ideal Cooling Solution for Your Consumable and Sample Type

Multiwell Microplates or Reservoirs

1. Choose a consumable:



Cat. No.	Description
U-bottom mi	croplates
3367	Corning [®] 96-well clear, not treated microplate, without lid
3360	Corning 96-well clear, TC-treated microplate, without lid, sterile
3789A	Corning 96-well white, not treated microplate, without lid
3792	Corning 96-well black, not treated microplate, without lid
Flat-bottom	plates
3596	Corning 96-well clear, TC-treated microplate, with lid
3516	Costar [®] 6-well clear, TC-treated multiwell plate
3512	Costar 12-well clear, TC-treated multiwell plate
3524	Costar 24-well clear, TC-treated multiwell plate
353224	Falcon [®] 6-well clear, TC-treated multiwell plate, with lid
353225	Falcon 12-well clear, TC-treated multiwell plate, with lid
353226	Falcon 24-well clear, TC-treated multiwell plate, with lid
353075	Falcon 96-well clear, TC-treated microplate, with lid
Reagent Rese	ervoirs
RES-V-50	Axygen [®] 50 mL disposable reagent reservoir
RES-V-50-S	Axygen 50 mL disposable reagent reservoir, sterile
RES-V-50-SI	Axygen 50 mL disposable reagent reservoir, individually wrapped, sterile

Products listed are Corning suggested compatible consumables; however, Corning CoolRack or CoolSink® are also compatible with most multiwell plate brands. Visit www.corning.com/lifesciences to get complete product information.

2. Choose a Corning CoolRack[®] or CoolSink:



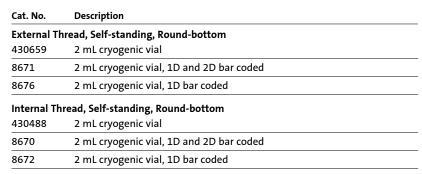
Corning CoolRack/ CoolSink Cat. No.	Compatible Microplate or Reservoir Consumable	SBS Compatible
432139	Axygen 50 mL disposable reagent reservoir	No
432070	Flat bottom microplate	Yes
432071	96-well U-bottom microplate	Yes
432072	55 mL reagent reservoir	No

3. Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free	e Corning CoolBo	x			Corning	Ice Buckets and Pa	ans	
		- Income	- Armentica				9		
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack/ CoolSink Cat.		ber of Corning Co can be accommo			Number of Co	orning CoolSink	s that can be acco	ommodated	
432139	_	_	1	6	6	1	1	1	1
432070	1	1	2	5	5	2	2	1	1
400074	1	1	2	5	5	2	2	1	1
432071	1	Ŧ	2	2	5	-	-	-	-

2 mL Cryogenic Vials

1. Choose a consumable:



Products listed are Corning suggested compatible consumables; however, Corning CoolRack[®] is also compatible with most cryogenic vial brands. Visit **www.corning.com/lifesciences** to get complete product information.

2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Number of Wells
432049	15
432050	24, SBS-compatible
432051	45
432052	30
432056	96 (no Corning consumables to go with 0.5 mL 2D tubes)
432057	96 (no Corning consumbales to go with 1.4 mL 2D tubes)



3. Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free	Corning CoolBox	(Cornir	ng Ice Buckets and	d Pans		
			(Frankilly)					1		
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Cat. No.	Numl that o	ber of Corning Co can be accommo	oolRacks odated		Number	of Corning C	oolRacks that can	be accommo	odated	
432049	1	1	4	9	9	3	3	1	2	2
432050	1	1	2	5	5	2	2	-	1	1
432051	-	-	1	3	3	1	1	_	1	1
432052	1	_	1	4	4	2	2	_	1	1
432056	1	1	2	5	5	2	2	_	1	1
432057	1	1	2	5	5	2	2	_	1	1



Build an Ideal Cooling Solution for Your Consumable and Sample Type



5 mL Cryogenic Vials

1. Choose a consumable:

Cat. No.	Description
430663	5 mL cryogenic vial, round bottom, external thread, self-standing
430656	5 mL cryogenic vial, round bottom, internal thread, self-standing

Products listed are Corning suggested compatible consumables; however, Corning[®] CoolRack[®] is also compatible with most cryogenic vial brands. Visit **www.corning.com/lifesciences** to get complete product information.

2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Number of Wells	SBS Compatible
432067	9	No



3. Choose a Corning CoolBox[™] Ice-free Solution or a Corning Ice Bucket

	Ice-free Corning CoolBox			Corning Ice Buckets and Pans					
		- Incoment	Armanity				9		
Corning	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	4L Round bucket with lid	2.5L Round bucket with lid
CoolRack Cat. No.	ack Number of Corning CoolRacks			Number of C	orning CoolRad	cks that can be acc	commodated		
432067	1 Requires	1 s XT or 2XT exter	2 nsion collar	6	6	2	2	1	1

Ordering Information

Corning Ice Buckets and Pans

Description	Dimensions (L x W x H)	Purple	Lime Green	Orange	Pink	Blue	Green	Red
Mini 1L ice pan	15.9 x 15.9 x 9.5 cm	432121	432119	432118	432120	432116	432115	432117
Midi 4L ice pan	31.1 x 22.2 x 11.4 cm	432109	432107	432106	432108	432104	432103	432105
Midi 4L ice pan with lid	35.0 x 22.5 x 11.4 cm	432114	432112	432111	432113	432110	_	_
Maxi 9L ice pan	40.6 x 31.8 x 11.4 cm	432099	432097	432096	432098	432094	432093	432095
Maxi 9L ice pan with lid	44.5 x 32.5 x 11.4 cm	432102	432101	_	_	432100	_	_
Round 2.5L ice bucket with lid	Top diameter: 24.1 cm Height: 12.1 cm	432135	432133	432132	432134	432129	432130	432131
Round 4L ice bucket with lid	Top diameter: 26.0 cm Height: 18.4 cm	432128	432126	432125	432127	432123	432122	432124

Corning[®] CoolBox™ XT Modules

Cat. No.	Description	Contains	Qty/Cs
432021	CoolBox XT, purple	Holder and one Cooling Core	1
432022	CoolBox XT, green	Holder and one Cooling Core	1
432023	CoolBox XT, orange	Holder and one Cooling Core	1
432024	CoolBox XT, pink	Holder and one Cooling Core	1
432025	CoolBox 2XT, purple	Holder and two Cooling Cores	1
432026	CoolBox 2XT, green	Holder and two Cooling Cores	1
432027	CoolBox 2XT, orange	Holder and two Cooling Cores	1
432028	CoolBox 2XT, pink	Holder and two Cooling Cores	1

Corning CoolBox Accessories

Cat. No.	Description	CoolBox XT Starter 432014	CoolBox XT 432021	CoolBox 2XT 432025
432081	XT Cooling core	1	1	2
432082	XT Freezing core	1	1	2
432083	Extension collar for CoolBox XT, purple	-	1	-
432084	Extension collar for CoolBox XT, green	_	1	-
432085	Extension collar for CoolBox XT, orange	_	1	_
432086	Extension collar for CoolBox XT, pink	_	1	-
432087	Extension collar for CoolBox 2XT, purple	_	-	1
432088	Extension collar for CoolBox 2XT, green	_	-	1
432089	Extension collar for CoolBox 2XT, orange	_	-	1
432090	Extension collar for CoolBox 2XT, pink	_	-	1

Corning CoolRack[®] and CoolSink[®] Plate and Reservoir Modules

Cat. No.	Description	CoolBox XT Starter 432014	CoolBox XT 432021	CoolBox 2XT 432025
432139	CoolRack LX50	_	-	1
432070	CoolSink XT 96F	1	1	2
432071	CoolSink XT 96U	1	1	2
432072	CoolSink LX55	-	_	1

Ordering Information (Continued)

Corning[®] CoolRack[®] M – Microcentrifuge Tube Modules

		ThermalTray					
Cat. No.	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075			
432034	CoolRack M6, gray	12	12	12			
432035	CoolRack M6, green	12	12	12			
432036	CoolRack M6, orange	12	12	12			
432037	CoolRack M15, gray	4	4	4			
432038	CoolRack M15, green	4	4	4			
432039	CoolRack M15, orange	4	4	4			
432040	CoolRack XT M24	3	3	3			
432041	CoolRack M30, gray	2	2	2			
432042	CoolRack M30, green	2	2	2			
432043	CoolRack M30, orange	2	2	2			
432044	CoolRack M90	1	1	1			
432045	CoolRack M96 ID	1	1	1			

Corning CoolRack M-PF – Conical Microcentrifuge Tube Modules with Profile-fit Wells

		ThermalTray					
Cat. No.	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075			
432046	CoolRack 500 μL M30-PF	2	2	2			
432047	CoolRack M15-PF	4	4	4			
432048	CoolRack M30-PF	2	2	2			

Corning CoolRack CF – Cryogenic Vial and FACS Tube Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432049	CoolRack CF15	4	4	4
432050	CoolRack XT CFT24	3	3	3
432051	CoolRack CF45	1	1	1
432052	CoolRack CFT30	2	2	2

Corning CoolRack PCR – PCR Tube and Plate Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432053	CoolRack XT PCR96	3	3	3
432054	CoolRack XT M-PCR	3	3	3
432055	CoolRack XT PCR384	3	3	3

Corning CoolRack – Tall Tube Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432060	CoolRack XT 5mL	3	3	3
432061	CoolRack 15 mL	3	3	3
432062	CoolRack 50 mL	3	3	3
432063	CoolRack 250 mL-PF	3	3	3
432064	CoolRack 250 mL-B	3	3	3
432068	CoolRack L	3	3	3

Ordering Information (Continued)

Corning® CoolRack® and CoolSink® Plate and Reservoir Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432139	CoolRack LX50	4	4	4
432070	CoolSink XT 96F	3	3	3
432071	CoolSink XT 96U	3	3	3
432072	CoolSink LX55	4	4	4

For more specific information on claims, visit the Certificates page at www.corning.com/lifesciences.

Warranty/Disclaimer: Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.

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For additional product or technical information, visit **www.corning.com/lifesciences** or call 800.492.1110. Outside the United States, call +1.978.442.2200 or contact your local Corning sales office.

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