PCR Starter Kit
For 96-well blocks, 0.2 mL

Part. No. A24829

Revison B

For Research Use Only. Not for use in diagnostic procedures.

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Contents

Product description

The PCR Starter Kit contains sample consumables necessary to start using your new Applied Biosystems™ Thermal Cycler. These consumables are designed to promote efficient heat transfer to obtain fast, high-performance polymerase chain reaction (PCR).

The table below lists the samples included in the kit. It does not list the actual quantities of the starter kit components. To re-order any of these items refer to the catalog number.

Note: For safety and biohazard guidelines, refer to the "Safety" appendix in the user guide for your thermal cycler. Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

Kit contents

Component	Cat. No.	Quantity [1]	Image
MicroAmp™ EnduraPlate™ Optical 96-Well Clear Reaction Plates with Barcode	4483354	3 ea	
MicroAmp™ TriFlex 3 x 32-Well PCR Reaction Plate	A32810	3 ea	
MicroAmp™ Clear Adhesive Film	4306311	5 pc	
MicroAmp™ 32-Well Clear Adhesive Film	A32812	10 pc	
MicroAmp™ 8-Cap Strip, clear	N8010535	12 pc	
MicroAmp™ 8-Tube Strip with attached domed caps, 0.2 mL	A30589	12 pc	

[1] This number refers to the quantity included in the starter kit, and may differ from the quantity received when re-ordering components using the catalog numbers provided in the table.

Component	Cat. No.	Quantity [1]	Image
MicroAmp™ Splash-Free 96-well Base	4312063	1 ea	
MicroAmp™ 96-well Tray/Retainer Set	4381850	1 ea	
MicroAmp™ 96-Well Tray for VeriFlex™ Blocks	4379983	1 ea	
MicroAmp™ Cap Installing Tool	4330015	1 ea	
MicroAmp™ Adhesive Film Applicator	4333183	1 ea	
MicroAmp™ Multi Removal Tool	4313950	1 ea	

[1] This number refers to the quantity included in the starter kit, and may differ from the quantity received when re-ordering components using the catalog numbers provided in the table.
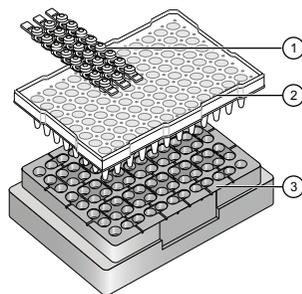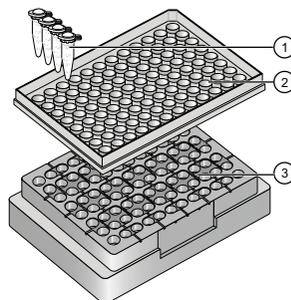
How to use the MicroAmp™ Splash-free 96-well Base

The MicroAmp™ Splash-free 96-well Base is compatible for use with MicroAmp™ reaction plates, tube strips, or reaction tubes, and provides a stable platform from which you can set up your experiment.

Step		Action

1	**Set up base and add reaction mix**	a. Set up the 96-well base.
		
		    ▪ If using reaction plates, place the PCR plate on the base.
		
		    ▪ If using tubes, place the tray on the base and load the tray with tubes.[1]
		
		b. Pipette the reaction mix into the tubes/wells.
		
		c. Seal the plate/tubes.
		
		    ▪ If using reaction plates, seal the PCR plate with adhesive film.
		
		    ▪ If using tubes, cap the tubes with the Cap Installing Tool.
			
			① MicroAmp™ 8-Cap Strip or adhesive film
			② MicroAmp™ Optical 96-Well Reaction Plate
			③ MicroAmp™ Splash Free 96-Well Base

2	**Place plate or tubes into instrument**	a. Remove the plate or tray with tubes from the 96-well base. b. Place the plate or tray with tubes into the sample block.	 ① MicroAmp™ Reaction Tube ② MicroAmp™ 96-Well Tray for Veriflex™ Blocks ③ MicroAmp™ Splash Free 96-Well Base

[1] For details on using MicroAmp™ tubes/strips, see "How to use the MicroAmp™ 96-well Tray and Retainer" (page 7) or "How to use the MicroAmp™ 96-well Tray for Veriflex™ Blocks" (page 9).

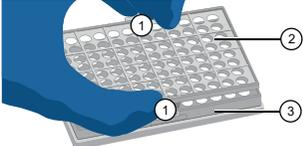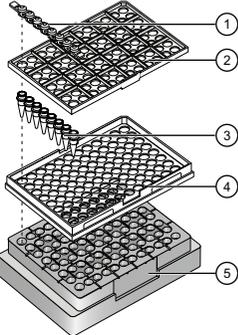# How to use the MicroAmp™ 96-well Tray and Retainer

The MicroAmp™ 96-well Tray and MicroAmp™ 96-well Retainer (Cat. No. 4381850) are used to distribute pressure evenly across the sample block.

- The tray and retainer set is compatible for use with MicroAmp™ **single tubes or tube strips** with **separate** cap strips.
- The tray by itself is compatible for use with MicroAmp™ **tube strips** with **attached** caps.
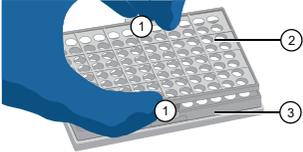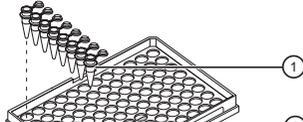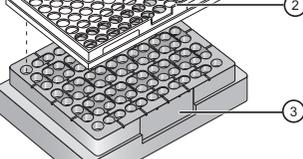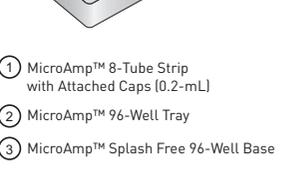
When small numbers of tubes (1–2 tube strips) are placed in the sample block without support, they can be crushed or deformed when the lid of the thermal cycler is closed over the block. Using the tray and retainer set allows the pressure to be distributed evenly over the tubes to ensure a proper seal, and prevent damage.

Using the tray and retainer set is optional when using ≥3 tube strips that are distributed evenly across the block.

Prepare samples using MicroAmp™ tubes/tube strips with separate cap strips

	Step	Action	
1	Separate tray and retainer	a. Squeeze the release catches on the sides of the assembly to release the **blue** retainer. b. Separate the **blue** tray and retainer.	 ① Release catch ② MicroAmp™ 96-Well Retainer ③ MicroAmp™ 96-Well Tray
2	Load the tray	a. Place the **blue** tray on a 96-well base. b. Load the tubes/tube strips into the tray.	
3	Fill and cap tubes	a. Pipette the reaction mix into the tubes. b. Place the **blue** retainer over the tubes and snap the retainer into the tray. c. Cap the tubes with a cap strip, and seal with the Cap Installing Tool.	① MicroAmp™ 8-Cap Strip ② MicroAmp™ 96-Well Retainer
4	Place tray/ retainer and tubes into instrument	a. Remove the **blue** tray/retainer assembly containing the sealed tubes from the 96-well base. b. Place the assembly with sealed tubes into the sample block.	③ MicroAmp™ 8-Tube Strip (0.2-mL) or MicroAmp™ Reaction Tube without Cap (0.2-mL) ④ MicroAmp™ 96-Well Tray ⑤ MicroAmp™ Splash Free 96-Well Base

Prepare samples using MicroAmp™ tube strips with attached caps

Step		Action
1	Separate tray and retainer	a. Squeeze the release catches on the sides of the assembly to release the **blue** retainer. b. Separate the **blue** tray and retainer. ① Release catch ② MicroAmp™ 96-Well Retainer ③ MicroAmp™ 96-Well Tray
2	Load the tray	a. Place the **blue** tray on a 96-well base. b. Load the tube strips into the tray.
3	Fill and cap tubes	a. Pipette the reaction mix into the tubes. b. Cap the tube strips and seal with the Cap Installing Tool.
4	Place retainer and tubes into instrument	a. Remove the **blue** tray and sealed tube strips from the 96-well base. b. Place the tray and sealed tube strips into the sample block. ① MicroAmp™ 8-Tube Strip with Attached Caps (0.2-mL) ② MicroAmp™ 96-Well Tray ③ MicroAmp™ Splash Free 96-Well Base

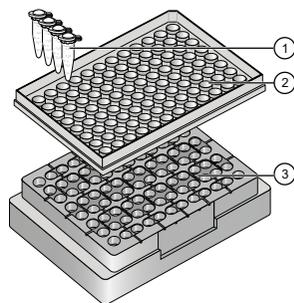# How to use the MicroAmp™ 96-well Tray for Veriflex™ Blocks

The MicroAmp™ 96-well Tray for Veriflex™ Blocks (Cat. No. 4379983) is used to distribute pressure evenly across the sample block. The tray is compatible for use with **single** MicroAmp™ reaction tubes with attached caps.

When small numbers of tubes (≤8–16 tubes) are placed in the sample block without support, they can be crushed or deformed when the lid of the thermal cycler is closed over the block. Using the tray and retainer set allows the pressure to be distributed evenly over the tubes to ensure a proper seal, and prevent damage.

Using the tray and retainer set is optional when using ≥16 tubes that are distributed evenly across the block.

Prepare samples using MicroAmp™ reaction tubes

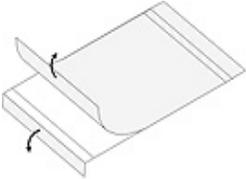|	Step	Action	
1	Load the tray	a. Place the **black** tray on a 96-well base. b. Load the tubes into the tray.	
2	Fill and cap tubes	a. Pipette the reaction mix into the tubes. b. Cap the tubes.	
3	Place tray and tubes into instrument	a. Remove the **black** tray containing the sealed tubes from the 96-well base. b. Load the **black** tray containing the sealed tubes into the sample block.	① MicroAmp™ Reaction Tube ② MicroAmp™ 96-Well Tray for Veriflex™ Blocks ③ MicroAmp™ Splash Free 96-Well Base

How to use the MicroAmp™ Adhesive Film Applicator

The MicroAmp™ Adhesive Film Applicator enables you to ergonomically push an adhesive film down upon a PCR plate to form a tight seal and minimize air bubbles. This tight seal will prevent well-to-well contamination and sample loss.

Seal a PCR plate with adhesive film

Step		Action	
1	**Apply film to plate**	a. Place the PCR plate on a Splash-free 96-well base. b. Remove the backing from the adhesive film. c. Place the adhesive film on the PCR plate, making sure to cover all the wells.	
2	**Seal plate**	a. Rub the flat edge of the applicator back and forth along the long edge of the plate	
		b. Rub the flat edge of the applicator back and forth along the short edge (width) of the plate.	
		c. Rub the end of the applicator horizontally and vertically between all wells.	
		d. Rub the end of the applicator around all outside edges of the plate using small back and forth motions to form a complete seal around the outside wells.	

How to use the MicroAmp™ Cap Installing Tool

The MicroAmp™ Cap Installing Tool enables you to ergonomically seal MicroAmp™ reaction tubes in a tray/retainer set or 96-well reaction plate. This tight seal will prevent well-to-well contamination and sample loss.

Seal a PCR plate with MicroAmp™ Optical (Flat) Cap Strips
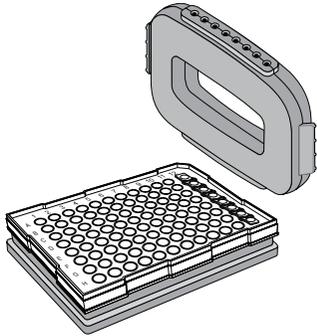
Step		Action	
1	Apply cap strip to plate	a. Place the PCR plate on a Splash-free 96-well base. b. Align the flat cap strip over the appropriate wells of the PCR plate.	
2	Align tool	a. Slip your fingers through the handle of the Cap Installing Tool. b. Grasp the tool with the circular side facing up, and the grooved side facing down.	
3	Seal plate	a. Place the grooved rings over the first caps in a row. b. Push and seat each cap firmly in place. Use a rocking motion to properly seat each cap.	

Seal a PCR plate with MicroAmp™ Domed Cap Strips

Step		Action	
1	Apply cap strip to plate	a. Place the PCR plate on a Splash-free 96-well base. b. Align the domed cap strip over the appropriate wells of the PCR plate.	
2	Align tool	a. Slip your fingers through the handle of the Cap Installing Tool. b. Grasp the tool with the grooved side facing up, and the grooved circular side facing down.	
3	Seal plate	a. Place the circular holes over the first caps in a row. b. Push and seat each cap firmly in place. Use a rocking motion to properly seat each cap.	
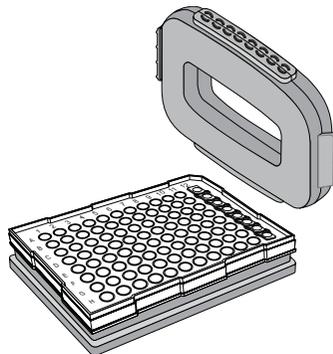
Remove cap strips from a PCR plate

Use the tool to remove MicroAmp™ Caps or MicroAmp™ Optical Caps from PCR plate and tray/retainer assemblies.

Step	Action	
1	Insert the small protrusions on the side of the Cap Installing Tool under the webbing between the caps on a cap strip.	
2	Slowly pry the strip from the plate or tray/retainer assembly.	
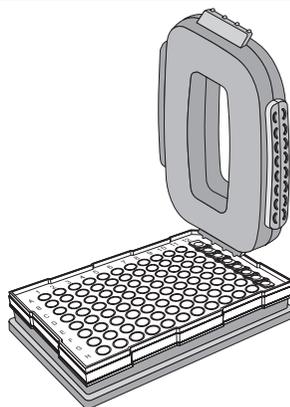
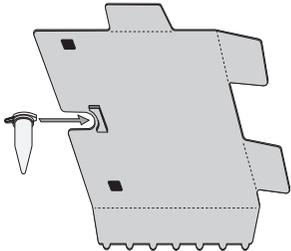# How to use the MicroAmp™ Multi Removal Tool

The MicroAmp™ Multi Removal Tool makes it easy to open caps, and remove PCR plates that get stuck on the sample block due to heat expansion after performing PCR.

Use this multi-functional tool to open MicroAmp™ Tubes or GeneAmp™ Tubes with attached caps, remove PCR plates from a thermal cycler sample block, and remove cap strips from reaction tubes in a PCR plate and tray/retainer assembly.

Open a tube with attached cap

Use the tool to open MicroAmp™ Tube with Cap, GeneAmp™ Tubes, or Fast Reaction Tube with Cap.

Step	Action	
1	Insert tube into U-shaped slot.	
2	Lift Multi Removal Tool to pry lid open.	

Remove cap strips from a PCR plate

Use the tool to remove MicroAmp™ Caps 8 or 12 Strip from a PCR plate or tubes in a tray/retainer assembly.

Step	Action	
1	Insert the small protrusions on the side Multi Removal Tool under the webbing between the caps of a cap strip.	
2	Slowly pry the strip from the plate or tray/retainer assemblies.	
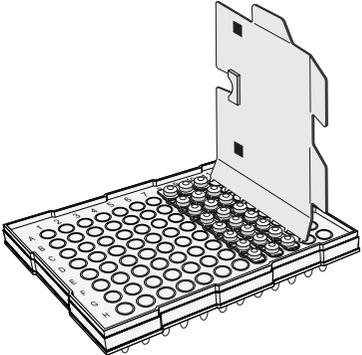
Remove a PCR plate from a sample block

Use the tool to remove MicroAmp™ Optical 96-Well Reaction Plate or 96-Well Fast Thermal Cycling Plate from the thermal cycler sample block.

Step	Action
1	Insert prong of Multi Removal Tool beside or adjacent the side of the PCR plate. ▪ Use the single pronged side of the tool on the short side of the plate. ▪ Use the two-pronged side of the tool on the long side of the plate.
2	Pry to remove the plate from the sample block.
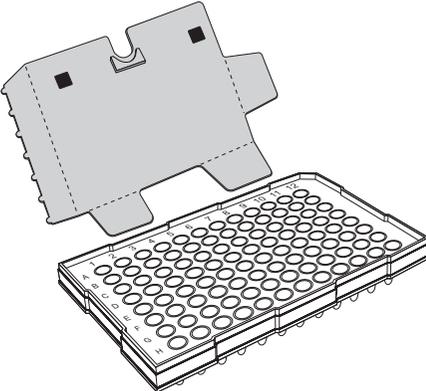
Remove a PCR plate from a sample block with roboslots

Use the tool to remove MicroAmp™ 384-Well Reaction Plate or 96-Well Fast Thermal Cycling Plate from a thermal cycler sample block.

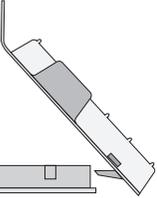| Step	Action	
1	Insert the two hook protrusions into the short side of the PCR plate.	
2	Lift to remove the plate from the sample block.	

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at www.thermofisher.com/us/en/home/global/terms-and-conditions.html. If you have any questions, please contact Life Technologies at www.thermofisher.com/support.

MicroAmp™ plastic compatibility chart

Product	Catalog No.
96-well 0.2 mL reaction plates	
Optical 96-Well Plate	N8010560, 4316813
Optical 96-Well Plate with Barcode	4306737, 4326659
96-Well Plate with Barcode & Optical Caps	403012
Optical 96-Well Plate with Barcode & Optical Adhesive Films	4314320
EnduraPlate Optical 96-Well Clear Plate with Barcode [1]	4483354, 4483352
TriFlex 3 x 32-Well Reaction Plate [2]	A32810, A32811
96-well 0.1 mL reaction plates	
Fast Optical 96-Well Plate, 0.1 mL	4346907
Fast Optical 96-Well Plate with Barcode, 0.1 mL	4346906, 4366932
EnduraPlate Optical 96-Well Fast Clear Plate with Barcode [1]	4483485, 4483494
384-well reaction plates	
Optical 384-Well Plate	4343370
Optical 384-Well Plate with Barcode	4309849, 4326270, 4343814
EnduraPlate Optical 384-Well Clear Plate with Barcode [1]	4483285, 4483273
Strip tubes and caps	
Fast 8-Tube Strip, 0.1 mL	4358293
Optical 8-Tube Strip with Attached Optical Caps, 0.2 mL	A30588
8-Tube Strip with Attached Domed Caps, 0.2 mL	A30589
8-Tube Strip, 0.2 mL [1]	N8010580
Optical 8-Tube Strip, 0.2 mL	4316567
8-Cap Strip [1]	N8010535, N8011535
Optical 8-Cap Strip	4323032
12-Cap Strip [1]	N8010534, N8011534
Single tubes	
Fast Reaction Tube with Cap, 0.1 mL	4358297, 4358293
Reaction Tube with Cap, 0.2 mL [1]	N8010540, N8010612, N8011540
Reaction Tube without Cap, 0.2 mL [1]	N8010533, N8011533
Optical Tube without Cap, 0.2 mL	N8010933
Seals and covers	
Clear Adhesive Film	4306311
Optical Adhesive Film	4360954, 4311971
32-Well Clear Adhesive Film [2]	A32812
Accessories	
Splash-Free 96-Well Base	4312063
96-Well Support Base	4379590
96-Well Base	N8010531
96-Well Reaction Tube/Tray/Retainer Set, 0.2 mL	403083, 403086

[1] Multiple colors are available.
[2] Do not use MicroAmp™ 3 × 32-Well Retainer.

3 x 32-well	96-well, 0.2 mL	96-well, 0.1 mL (Fast)	384-well
ProFlex™	Veriti™, ProFlex™, SimpliAmp™	Veriti™	ProFlex™, Veriti™
96-well 0.2 mL reaction plates			
—	●	—	—
—	●	—	—
—	●	—	—
—	●	—	—
—	●	—	—
● [2]	●	—	—
96-well 0.1 mL reaction plates			
—	—	●	—
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—	—	●	—
384-well reaction plates			
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Strip tubes and caps			
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●	●	—	—
●	●	●	—
●	●	●	—
—	●	●	—
Single tubes			
—	—	●	—
●	●	—	—
●	●	—	—
●	●	—	—
Seals and covers			
—	●	●	●
—	●	●	●
● [2]	●	—	—
Seals and covers			
—	●	●	—
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MicroAmp™ plastic consumables for Applied Biosystems™ PCR systems

These consumables are compatible with Veriti™, ProFlex™, and SimpliAmp™ PCR systems with 96-well 0.2 mL blocks. Go to thermofisher.com/plastics for additional details.

Product	Catalog No.
96-well 0.2 mL reaction plates	
Optical 96-Well Plate	N8010560, 4316813
Optical 96-Well Plate with Barcode	4306737, 4326659
96-Well Plate with Barcode & Optical Caps	403012
Optical 96-Well Plate with Barcode & Optical Adhesive Films	4314320
EnduraPlate Optical 96-Well Clear Plate with Barcode [1]	4483354, 4483352
TriFlex 3 x 32-Well Reaction Plate	A32810, A32811
Strip tubes and caps	
Optical 8-Tube Strip with Attached Optical Caps, 0.2 mL	A30588
8-Tube Strip with Attached Domed Caps, 0.2 mL	A30589
8-Tube Strip, 0.2 mL [1]	N8010580
Optical 8-Tube Strip, 0.2 mL	4316567
8-Cap Strip [1]	N8010535, N8011535
Optical 8-Cap Strip	4323032
12-Cap Strip [1]	N8010534, N8011534
Single tubes	
Reaction Tube with Cap, 0.2 mL [1]	N8010540, N8010612, N8011540
Reaction Tube without Cap, 0.2 mL [1]	N8010533, N8011533
Optical Tube without Cap, 0.2 mL	N8010933
Seals and covers	
Clear Adhesive Film	4306311
Optical Adhesive Film	4360954, 4311971
32-Well Clear Adhesive Film	A32812
Accessories	
Splash-Free 96-Well Base	4312063
96-Well Support Base	4379590
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96-Well Reaction Tube/Tray/Retainer Set, 0.2 mL	403083, 403086

[1] Multiple colors are available.