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Cancer Cell
Article

Cell PRESS

Runx3 Inactivation Is a Crucial Early Event in the Development of Lung Adenocarcinoma

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http://dx.doi.org/10.1016/j.ccr.2013.10.003

SUMMARY

Targeted inactivation of *Runx3* in mouse lung induced mucinous and nonmucinous adenomas and markedly shortened latency of adenocarcinoma formation induced by oncogenic *K-Ras*. *RUNX3* was frequently inactivated in *K-RAS* mutated human lung adenocarcinomas. A functional genetic screen of a fly mutant library and molecular analysis in cultured cell lines revealed that Runx3 forms a complex with BRD2 in a K-Ras-dependent manner in the early phase of the cell cycle; this complex induces expression of $p14^{ARF}$/$p19^{Arf}$ and $p21^{WAF/CIP}$. When K-Ras was constitutively activated, the Runx3-BRD2 complex was stably maintained and expression of both $p14^{ARF}$ and $p21^{WAF/CIP}$ was prolonged. These results provide a missing link between oncogenic K-Ras and the $p14^{ARF}$-p53 pathway, and may explain how cells defend against oncogenic *K-Ras*.

Finepcr system icon

- 3D motion — The platform moves in a twist motion
- Orbital — The platform moves in a circular motion
- Rotator — The platform rotary at a tilting angle
- Heating — The product has incubating system
- Cooling — The product has cooling system
- Rocker — The platform moves in a seesaw motion
- Reciprocating — The platform moves from side to side
- Vortex — The move on spining action
- Digital — The product can control digital type
- Free Voltage (100V~240V) — The power cord is a AC 100-240 V
- Sealing — The product has sealing system

Contents

MICROMIXER
1. MX2 : 2micro plates | vibration & Small mixing combination | 0 ~2000rpm — 04
2. MX4 : 4micro plates | 300 ~ 1400rpm | 180Min-Timer
3. confido-S20 : 2micro plates | Digital display | 300 ~ 2000rpm — 05
4. confido-S202 : 4micro plates | Digital display | 300 ~ 1600rpm

THERMO MICROMIXER
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MICROMIXER

■ MX2 / Ideal mixing combination

· Compact mixer with vibration and small orbit for effective mixing
· Smooth vibrating motion

■ MX4 / Reliable shaking motion

· Orbital of 3mm for efficient mixing in small sample vessels.
· High quality DC brushless motor for gentle and powerful motion

▶ Common facts

· Continuous or timed operation
· Optional rack for 1.5ml centrifuge tube
· Simple silicon holders for easy installation with plate.

▶MX2

Vortex

▶MX4

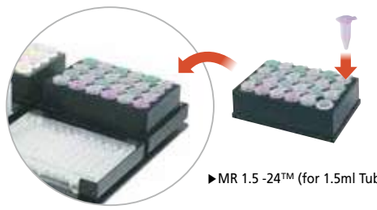
Vortex

100V~240V
Free Voltage

PLATE INSTALLATION

▶ Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

ACCESSORY



▶MR 1.5 -24™ (for 1.5ml Tubes)

Specification

Model		MX2	MX4
Orbit Range		Vibration	3mm
Speed	micro well plate & 1.5ml tube	0 ~ 2000rpm	300 ~ 1400rpm
	deep well plate	-	300 ~ 1000rpm
Capacity	micro well plate	2ea	4ea
	deep well plate	-	4ea
	1.5ml tube	48ea	96ea
Motor		DC Motor	BLDC Motor
Timer (speed)		60min	180min
Weight		3kg	7.7kg
Dimensions (mm)		W176×D339×H110	W290×D320×H130
Wattage		4.4W	20W
Power		AC 100-240V (*220-230V : CE cert)	Free Voltage (AC100-240V)
Frequency		50/60Hz	50/60Hz

Accessory

MR1.5-24	Tube Rack / 1.5ml centrifuge tube capacity: 24ea

MICROMIXER

■ confido-S20 / Ideal mixing combination

· Compact mixer and small orbit for effective mixing
· Smooth vibrating motion

■ confido-S202 / Reliable shaking motion

· Effective accept standard microplates, including deep well plates
· Variable speed across a broad range, making them useful for variety of applications

▶ Common facts

· High quality DC brushless motor for gentle and powerful motion
· Orbital of 3mm for efficient mixing in small sample vessels.
· Continuous or timed operation
· Optional rack for 1.5ml centrifuge tube
· Simple silicon holders for easy installation with plate
· LED display shows actual speed or time

▶confido-S20

Vortex

100V~240V
Free Voltage

▶confido-S202

Vortex

100V~240V
Free Voltage

Specification

Model		confido-S20	confido-S202
Orbit Range		3mm	
Speed	micro well plate & 1.5ml tube	300 ~ 2000rpm	300 ~ 1600rpm
	deep well plate	-	300 ~ 1400rpm
Capacity	micro well plate	2ea	4ea
	deep well plate	-	4ea
	1.5ml tube	48ea	96ea
Motor		BLDC Motor	
Timer (speed)		99hour 59min	
Dimensions (mm)		W180×D330× H131	W290×D325×H140
Weight		5kg	6kg
Wattage		20W	
Power		Free Voltage (AC100-240V)	
Frequency		50/60Hz	

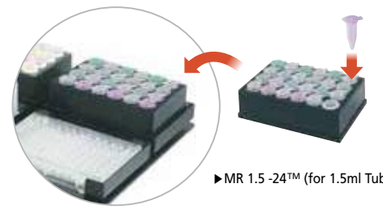
Accessory

MR1.5-24	Tube Rack / 1.5ml centrifuge tube capacity: 24ea

PLATE INSTALLATION

▶ Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

ACCESSORY



▶MR 1.5 -24™ (for 1.5ml Tubes)

THERMO MICROMIXER

▶confido-S20H

Vortex Heating CE

■ confido-S20H / compact mixer with incubation

· Compact mixer and small orbit for effective mixing smooth vibrating motion

■ confido-S202H / Well designed for mixing and heating

· Effective accept standard microplates, including deep well plates
· Variable speed across a broad range, making them useful for a variety of applications

▶ Common facts

· Digital micro processor control [PID] for highest accuracy
· Effective ventilation system guarantees accurate temperature control
· High quality DC brushless motor for gentle and powerful motion
· Orbital of 3mm for efficient mixing in sample vessels.
· Continuous or timed operation
· Optional rack for 1.5ml centrifuge tube
· Simple silicon holders for easy installation with plate
· LED display shows actual speed and time
· "UP and OVER" door

- safety features:

· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

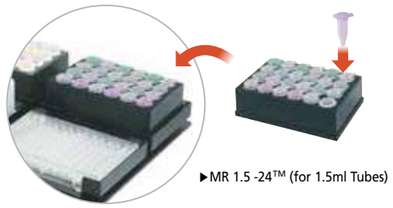
▶confido-S202H

Vortex Heating CE

PLATE INSTALLATION

▶ Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

ACCESSORY



▶MR 1.5 -24™ (for 1.5ml Tubes)

Specification

Model		confido-S20H	confido-S202H
Orbit Range		3mm	
Speed	micro well plate & 1.5ml tube	300 ~ 2000rpm	300 ~ 1600rpm
	deep well plate	300 ~ 1400rpm	
Capacity	micro well plate	2ea	4ea
	deep well plate	2ea	4ea
	1.5ml tube	48ea	96ea
Temp. Range		Ambient +5°C~65°C	
Temp. Accuracy		±0.2°C	
Motor		BLDC Motor	
Timer (temp.)		99hour 59min	
Dimensions (mm)		W280×D423×H257	W384×D423×H257
Weight		10.5kg	13kg
Wattage		180W	
Power		AC 100-240V (*220-230V : CE cert)	
Frequency		50/60Hz	

Accessory

MR1.5-24	Tube Rack / 1.5ml centrifuge tube capacity: 24ea

CONICAL TUBE MIXER™ Incubator-CONICAL TUBE MIXER™

NEW

■ confido-S50 new4 / Ingenious mixing for conical tube

· Special motion and Ingenious mixing

■ confido-S50H new4 / Ideal mixing & heating for conical tube

· Digital micro processor control [PID] for highest accuracy
· Effective ventilation system guarantees accurate temperature control
· "UP and OVER" door

- safety features:

· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ Common facts

· A sturdy double rack for stable shaking
· High quality DC brushless motor for gentle and powerful motion
· Continuous or digital timed operation
· Needless other accessory
· LED display shows actual speed and time

▶confido-S50 new4

Orbital 100V~240V Free Voltage CE

Orbital Heating CE

▶confido-S50H new4

Specification

Model		confido-S50 new14	confido-S50H new14
Orbit Range		15ml-13mm / 50ml-10mm	
Speed Range		60 ~600rpm	
Capacity	conical tube 50ml	12ea	
	conical tube 15ml	16ea	
Temp. Range		-	Ambient +5°C~65°C
Temp. Accuracy		-	±0.2°C
Motor		BLDC Motor	
Timer (temp.)		-	99hour59min
Timer (speed)		99hour59min	-
Dimensions (mm)		W210×D365×H227	W280×D423×H257
Weight		8kg	14kg
Wattage		35W	330W
Power		Free Voltage (AC100-240V)	AC 100-240V (*220-230V : CE cert)
Frequency		50/60Hz	50/60Hz

Shaking INCUBATOR™ 2D&3D motion

■ BAE07-H300 / Variable plate for heating shaking Incubator
· Quick and easy control heating system

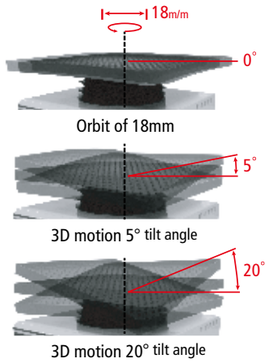
■ BAE07-C300 / Special movement shaking Incubator
· Effective ventilation system guarantees accurate temperature control

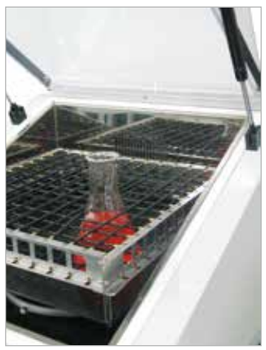
▶ Common facts
· Digital micro processor control [PID] for highest accuracy
· Chamber is seperated to keep constant temperature.
· BAE MECHANISM (patented, 5step angle adjustment system) allows orbital motion and various twist movement
· Dual mat to accommodate each vessel
· LED display shows actual speed and time
· "Up and OVER" door
- safety features:
· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· Bacteria / Yeast culture

3D motion Orbital Heating ▶BAE07-H300

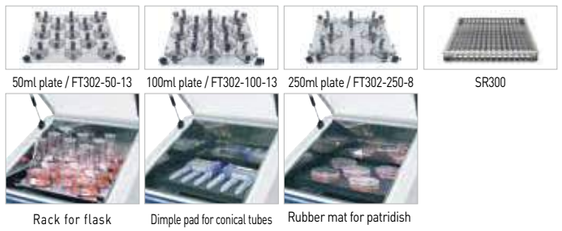
3D motion Orbital Heating Cooling ▶BAE07-C300





※The rack available up to 250ml flasks.

ACCESSORIES



50ml plate / FT302-50-13 | 100ml plate / FT302-100-13 | 250ml plate / FT302-250-8 | SR300

Rack for flask | Dimple pad for conical tubes | Rubber mat for patridish

Specification

Model	BAE07-H300	BAE07-C300
Speed Range	30-300rpm	
Shaking Angle	orbital range-18mm 3D twist 5° 3D twist 10° 3D twist 15° 3D twist 20°	
Temp. Range	Ambient +5°C~80.0°C	15.0°C~65.0°C
Temp. Accuracy	±0.2°C	±0.4°C
Motor	BLDC Motor	
Timer (temp.)	99hour 59min	
Dimensions(mm)	W470xD630xH410	W470xD647xH410
Weight	34kg	37kg
Wattage	610W	810W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

Shaking Capacities

Model Number	BAE07-H300	BAE07-C300
50ml Flask	13ea	
100ml Flask	13ea	
250ml Flask	8ea	

Accessories

Model Number	Description
FT302-50-13	Flask Table for 50ml flask - Capacity : 13ea
FT302-100-13	Flask Table for 100ml flask - Capacity : 13ea
FT302-250-8	Flask Table for 250ml flask - Capacity : 8ea
SR300	Flexible silicon wire rack (W300xD300mm)

Shaking INCUBATOR™ [for micro well plate] 2D motion

■ BAE07-H2000 / Large capacity shaking Incubator
· Quick and easy control heating system

■ BAE07-C2000 / Well design for cooling shaking Incubator
· Controls heating and cooling level easy and quickly
· Effective ventilation system guarantees accurate temperature control

▶ Common facts
· Digital micro processor control [PID] for highest accuracy
· Chamber is seperated to keep constant temperature.
· Standard platform for six micro well plates
· Simple silicon holders for easy plate installation with plate
· Variable speed between 300 to 1800rpm
· LED display shows actual speed and time
· "Up and OVER" door
- safety features:
· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· Bacteria / yeast culture (small scale)

▶BAE07-H2000 Vortex Heating

▶BAE07-C2000 Vortex Heating Cooling

Specification

Model		BAE07-H2000	BAE07-C2000
Speed Range		300-1800rpm	
Capacity	micro well plate	6ea	
	deep well plate	6ea	
	1.5ml tube	144ea	
Orbit Range		3mm	
Temp. Range		Ambient +5°C~65.0°C	15.0°C~65.0°C
Temp. Accuracy		±0.2°C	±0.4°C
Motor		BLDC Motor	
Timer (temp.)		99hour 59min	
Dimensions(mm)		W470xD630xH410	W470xD647xH410
Weight		34kg	39kg
Wattage		610W	810W
Power		AC 100-240V (*220-230V : CE cert)	
Frequency		50/60Hz	

Shaking Capacities

Model Number	BAE07-H2000	BAE07-C2000
1.5ml Tubes	144ea	
Micro Well Plate	6ea	
Deep Well Plate	6ea	

Accessory

MR1.5-24	Tube Rack / 1.5ml centrifuge tube capacity: 24ea

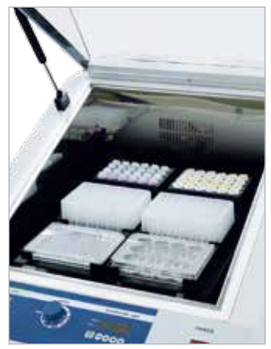
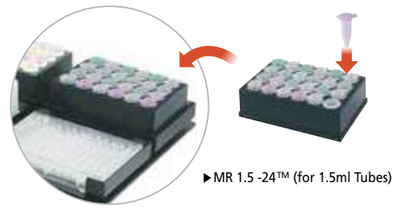


PLATE INSTALLATION

▶ Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

ACCESSORY



▶MR 1.5 -24™ (for 1.5ml Tubes)

www.finepcr.com

orbital / reciprocating SHAKER

▶SH30

Orbital · Free Voltage

■ **SH30 / Use with a wide variety of large capacity platforms**
- Smooth and powerful orbital motion at low speed

■ **SH30L / Large capacity platforms - smooth reciprocating motion**
- Smooth and powerful reciprocating motion at low speed

▶ Common facts
- Continuous or timed operation
- Optional second platform available to double the working area, large upper platform for a variety of flasks and tubes
- Other type flask platform also available upon special request
- Standard elastic ties for easy fitting of flasks and conical tubes
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around

▶SH30L

Reciprocating · Free Voltage

▶ An examples to use
· Bacteria / Yeast culture

Specification

Model	SH30	SH30L
Orbital range	14mm	-
Reciprocate range	-	30mm
Speed range	40 ~ 300 rpm	
Motor	DC Motor	
Timer (speed)	180min	
Temp. Resist	Lower than 65°C(Dry air)	
Loadable weight	8kg	
Weight	15kg	
Dimensions (mm)	W330×D330×H157	W330×D330×H162
Platform (mm)	W300×D300	
Wattage	35W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

Accessories

Model Number	Description
DP-300	Dimpled Pad (W300×D300mm)
TY300	Second platform (with posts : 4ea)
UP400	400×400 mm Upper Platform
UP500	500×500 mm Upper Platform
SR300	Flexible silicon wire rack (W300×D300mm)

Other Accessories

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
CP500	500ml flask holder
FT302	Universal Table for flask holder
FT302-50-13	Flask Table for 50ml flask-Capacity : 13ea
FT302-100-13	Flask Table for 100ml flask-Capacity : 13ea
FT302-250-8	Flask Table for 250ml flask-Capacity : 8ea

ACCESSORIES

DUAL MOTION SHAKER

▶2D-300

Orbital or Reciprocating · Free Voltage

■ **2D-300 / Standard size change between orbital or reciprocating motion**
- Installed 300X300 size platform

■ **2D-400 / Large size change between orbital or reciprocating motion**
- Installed 400X400 size platform

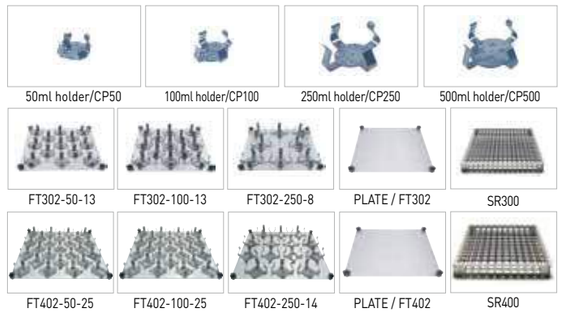
▶ Common facts
- Smooth and powerful orbital or reciprocating motion at low speed
- Optional platform for flasks
- Flexible silicon wire rack for various tubes, flasks, etc.
- High quality DC brushless motor for gentle and powerful motion
- Continuous or timed operation
- LED display shows actual speed or time

▶ An examples to use
· Bacteria / Yeast culture

▶2D-400

Orbital or Reciprocating · Free Voltage

ACCESSORIES



Specification

Model	2D-300	2D-400
Shaking Range	14mm	28mm
Speed Range	45 - 400rpm	
Motor	BLDC motor	
Timer (speed)	99hour 59min	
Temp. Resist	Lower than 55°C	
Loadable weight	4kg	6kg
Weight	13kg	17kg
Dimensions(mm)	W320×D410×H140	W430×D520×H140
Platform(mm)	W300×D300	W400×D400
Wattage	30W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

Accessories (2D-300)

Model Number	Description
FT302	Universal Table for flask holder (300x300mm)
FT302-50-13	Flask Table for 50ml flask-capacity : 13ea
FT302-100-13	Flask Table for 100ml flask-capacity : 13ea
FT302-250-8	Flask Table for 250ml flask -capacity : 8ea
SR300	Flexible silicon wire rack (W300×D300mm)

Accessories (2D-400)

Model Number	Description
FT402	Universal Table for flask holder (400x400mm)
FT402-50-25	Flask Table for 50ml Flask-capacity : 25ea
FT402-100-25	Flask Table for 100ml flask-capacity : 25ea
FT402-250-14	Flask Table for 250ml flask -capacity : 14ea
SR400	Flexible silicon wire rack (W400×D400mm)

Other Accessories

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
CP500	500ml flask holder

■ FMS2 / Compact multi shaker

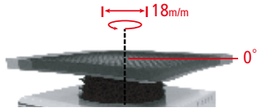
· 200X200mm platform for efficient incubator operation

■ FMS3 / Extremely quiet operation with various movement position

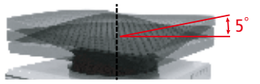
· High quality DC brushless motor for gentle and powerful motion
· Installed 300X300mm platform
· Continuous or timed operation

▶ Common facts

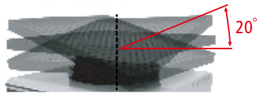
· BAE MECHANISM (patented, 5 step angle adjustment system) allows orbital motion and various twist movement
· Orbit of 18mm for best mixing result especially for gel and blottiong
· Dual mat to accommodate each vessel
· Simple and easy of angle adjustment



Orbit of 18mm

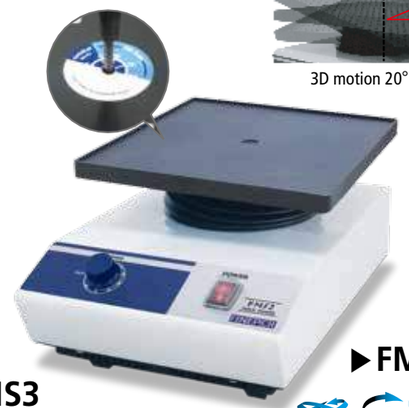


3D motion 5° tilt angle



3D motion 20° tilt angle

▶ An examples to use
· Western blotting
· Gel staining
· Immunoprecipitation
· Bacteria / Yest culture



▶FMS3

3D motion Orbital Free Voltage CE

▶FMS2

3D motion Orbital Free Voltage CE

Specification

Model	FMS2	FMS3
Speed range	5 ~ 90 rpm	30 ~ 300 rpm
Shaking Angle	orbital range-18mm 3D twist 5° 3D twist 10° 3D twist 15° 3D twist 20°	
Motor	DC Warm Geard Motor	BLDC Motor
Temp. Resist	Lower than 65℃(Hum 90%)	Lower than 55℃(Dry air)
Loadable weight	1Kg	3Kg
Timer (speed)	-	180min
Weight	3Kg	12Kg
Dimensions (mm)	W200×D280×H147	W300×D300×H155
Platform (mm)	W200×D200	W300×D300
Wattage	35W	50W
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

ACCESSORIES (FMS3)

50ml holder/CP50

100ml holder/CP100

250ml holder/CP250

50ml plate / FT302-50-13

100ml plate / FT302-100-13

250ml plate / FT302-250-8

PLATE / FT302

SR300

Accessories (FMS3)

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
FT302	Universal Table for flask holder
FT302-50-13	Flask Table for 50ml flask-Capacity : 13ea
FT302-100-13	Flask Table for 100ml flask-Capacity : 13ea
FT302-250-8	Flask Table for 250ml flask-Capacity : 8ea
SR300	Flexible silicon wire rack (W300×D300mm)

■ 3D-200 / Compact multi shaker

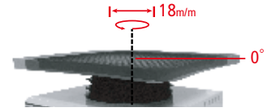
· 200X200mm platform for efficient incubator operation

■ 3D-300 / Extremely quiet operation with various movement position

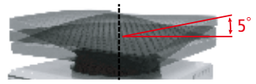
· High quality DC brushless motor for gentle and powerful motion
· Installed 300X300mm platform

▶ Common facts

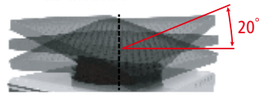
· BAE MECHANISM (patented, 5 step angle adjustment system) allows orbital motion and various twist movement
· Orbit of 18mm for best mixing result especially for gel and blotting
· Dual mat to accommodate each vessel
· Continuous or timed operation
· LED display shows actual speed or time



Orbit of 18mm



3D motion 5° tilt angle



3D motion 20° tilt angle

▶ An examples to use
· Western blotting
· Gel staining
· Immunoprecipitation
· Bacteria / Yest culture

▶3D-200

3D motion Orbital Free Voltage CE

▶3D-300

3D motion Orbital Free Voltage CE

Specification

Model	3D-200	3D-300
Speed range	5 ~ 90 rpm	30 ~ 300 rpm
Shaking Angle	orbital range-18mm 3D twist 5° 3D twist 10° 3D twist 15° 3D twist 20°	
Motor	DC Warm Geard Motor	BLDC Motor
Temp. Resist	Lower than 65℃(Hum 90%)	Lower than 55℃(Dry air)
Loadable weight	1Kg	3Kg
Timer (speed)	99hour 59min	99hour 59min
Weight	3Kg	12Kg
Dimensions (mm)	W200×D280×H147	W300×D380×H170
Platform (mm)	W200×D200	W300×D300
Wattage	35W	50W
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

ACCESSORIES (3D-300)

50ml holder/CP50

100ml holder/CP100

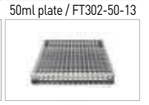
250ml holder/CP250

50ml plate / FT302-50-13

100ml plate / FT302-100-13

250ml plate / FT302-250-8

PLATE / FT302


SR300

Accessories (3D-300)

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
FT302	Universal Table for flask holder
FT302-50-13	Flask table for 50ml flask-Capacity : 13ea
FT302-100-13	Flask table for 100ml flask-Capacity : 13ea
FT302-250-8	Flask table for 250ml flask-Capacity : 8ea
SR300	Flexible silicon wire rack (W300×D300mm)

twist SHAKER™

3D motion

■ Powerful and reliable 3D orbital motion

- · Gentle 3D motion and sturdy construction for high capacity
- · Continuous or timed operation
- · Standard elastic ties for easy fitting of flasks and conical tubes
- · Optional second platform available to double the working area, large upper platform for variety of flasks and tubes
  Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around
- · Rubber bellows for protecting the user's finger from inadvertent accident

▶ An examples to use
- · Western blotting
- · Gel staining
- · Immunoprecipitation
- · Bacteria / Yest culture

3D motion 7° tilt angle

▶TW3

3D motion Free Voltage

ACCESSORIES

DP-300

TY300

UP400

Specification

Model	TW3
Tilt Angle	±7°
Speed Range	8 ~ 70 rpm
Motor	DC Warm Geard Motor
Timer (Speed)	180min
Temp. Resist	Lower than 65°C(Dry air)
Loadable Weight	5Kg
Weight	9Kg
Dimensions (mm)	W330×D330×H178
Platform (mm)	W300×D300
Wattage	35W
Power	Free Voltage (AC100-240V)
Frequency	50/60Hz

Accessories

Model Number	Description
DP-300	Dimpled Pad (W300 X D300 mm)
TY300	Second platform, (with posts : 4ea)
UP400	Upper platform (W400 X D400 mm)

FINEVORTEX™

4S

Simple
Any other accessories are unnecessary.
Universal rack can be used for several kinds of tubes.

Smooth touch

Strong
Powerful and stable motion
without noise on 3,000rpm.

Stable
Special Rubber feet with shock-absorber
system prevent it from moving around on a desk.

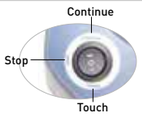
▶ An examples to use
- · DNA / RNA Extraction

▶FINEVORTEX™

Vortex

Specification

Model	FINEVORTEX
Orbit range	4mm
Speed range	0 ~ 3000rpm
Temp.Resist	5°C~ 40°C
Weight	1.9kg (packing : 2.5kg)
Dimensions (mm)	W145×D175×H140
Wattage	35W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz



3 STEP SWITCH

Universal Rack
All kinds of test tubes can be loaded on the unversial rack.

Shock-absorber feet
Anti-vibration during the vortexing
The shock-absorber feet is
holding the ground not to slip.

Rubber platform (RP-70)
Rubber platform provides easier vortexing for two or three tubes at the same time.

COLOR

DARK BLUE

WHITE

GRAY

HOW TO USE

■ Touching mode

1.5ml Tube

15ml Tube

50ml Tube

Flask

■ Continuous mode

1.5ml centrifuge Tube

15ml Conical Tube

■ Using Rubber platform mode (RP-70)

Using two tubes at the same time

Smooth touching with 15ml tube

▶ An examples to use
- Western blotting
- Gel staining
- Immunoprecipitation
- DNA / RNA Extraction

■ CR95 / Economical and compact rocker
- Speed setting of 12, 15, 21, 27, 39 or 55rpm
- Suitable for continuous operation
- Can be used in incubators up to 80°C

■ CR100 / Compact rocker in timed and continuous operation
- Variable speed control from 8 and 70rpm
- Continuous or timed operation

■ CR300 / Large capacity platforms and smooth rocking motion
- Variable speed control from 8 and 70rpm
- Continuous or timed operation
- Large platform for variety of flasks and tubes

▶ Common facts
- Sturdy and durable construction for use at variable temperature
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around
- All moving parts of the rocking platform are combined with ball joints for smooth operation and years of consistent operation
- Optional second platform available to double the working area

▶ CR300
Rocker Free Voltage

▶ CR100
Rocker Free Voltage

▶ CR95
Rocker

Specification

Model	CR95	CR100	CR300
Tilt Angle	±7°	±9°	
Speed Range	selected 12 ~ 55rpm (6steps)	8 ~ 70 rpm	
Motor	DC Warm Geard Motor		
Timer (speed)	-	180min	
Temp. Resist	Lower than 80°C(Dry air)	Lower than 65°C(Dry air)	
Loadable Weight	5Kg	7Kg	10Kg
Weight	6Kg	6.5Kg	8.2Kg
Dimensions (mm)	W290×D230×H160	W290×D230×H170	W330×D300×H203
Platform (mm)	W290×D200	W290×D200	W300×D330
Wattage	25W	35W	
Power	AC 100-240V (*220-230V : CE cert)	Free Voltage (AC100-240V)	
Frequency	50/60Hz	50/60Hz	

Accessories

Model	Model Number	Description
CR95	DP-95	Dimpled Pad (W260×D200 mm)
	TY95	Second platform (with posts : 4ea)
CR100	DP-100	Dimpled Pad (W260×D200 mm)
	TY100	Second platform (with posts: 4ea)
CR300	DP-300	Dimpled Pad (W300×D300 mm)
	TY300	Second platform (with posts : 4ea)
	UP400	Upper Platform (W400×D400 mm)

ACCESSORIES (CR95)

DP-95

TY95

ACCESSORIES (CR100)

DP-100

TY100

ACCESSORIES (CR300)

DP-300

TY300

UP400

compact ROCKER™

■ CR2030 / Compact rocker in timed and continuous operation

■ CR3030 / Large capacity platforms and smooth rocking motion
- Large platform for variety of flasks and tubes

▶ Common facts
- Variable speed control from 8 and 70rpm
- Continuous or timed operation
- Sturdy and durable construction for use variable temperature
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around
- All moving parts of the rocking platform are combined with ball joints for smooth operation and years of consistent operation
- Optional second platform available to double the working area
- LED display shows actual speed or time

▶ An examples to use
- Western blotting
- Gel staining
- Immunoprecipitation
- DNA / RNA Extraction

▶ CR3030
Rocker Free Voltage

▶ CR2030
Rocker Free Voltage

Specification

Model	CR2030	CR3030
Tilt Angle	±9°	
Speed Range	8 ~ 70rpm	
Motor	DC Warm Geard Motor	
Timer (speed)	99hour 59min	
Temp. Resist	Lower than 65°C(Dry air)	
Loadable Weight	7Kg	10Kg
Weight	6.5Kg	8.2Kg
Dimensions (mm)	W200×D360×H175	W300×D400×H185
Platform (mm)	W200×D290	W300×D300
Wattage	35W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

Accessories

Model	Model Number	Description
CR2030	DP-100	Dimpled Pad (W290×D200 mm)
	TY100	Second platform (with posts: 4ea)
CR3030	DP-300	Dimpled Pad (W300×D300 mm)
	TY300	Second platform (with posts : 4ea)
	UP400	Upper Platform (W400×D400 mm)

ACCESSORIES (CR2030)

DP-100

TY100

ACCESSORIES (CR3030)

DP-300

TY300

UP400

ROTATOR

■ AG / Adjustable speed and angle of rotation

· Durable construction for long-term operation

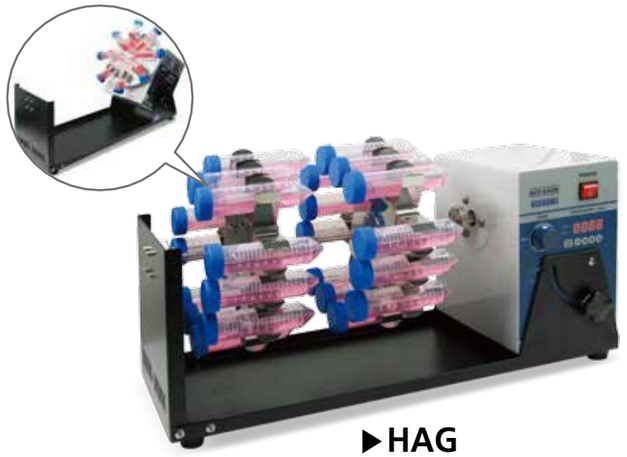
■ HAG / Use with a wide variety of accessories

· Optional rocking platform for washing

▶ Common facts

· Various speed and adjustable mixing angle 0°~90°
· Continuous or timed operation
· Wide choice of accessories to be used, including conical tubes, bottles and 250ml flasks
· Add up to 2disks together for application
· LED display (shown actual speed or time)

▶ An examples to use
· Bacteria / Yeast calture (small scale)
· Genomic DNA prepararation
· Plasmid preparation



▶HAG

100V~240V Free Voltage · Rotator · Rocker · CE

▶AG

100V~240V Free Voltage · Rotator · CE

Specification

Model	AG	HAG
Angle Range	0° ~ 90°	
Speed Range	7 ~ 70rpm	
Timer (speed)	99hour 59min	
Temp.Resist	Lower than 65°C(Dry air)	
Weight	7.5kg	8kg
Dimensions (mm)	W220×D236×H246	W510×D236×H246
Wattage	35W	
Power	Free Voltage (AC100~240V)	
Frequency	50/60Hz	

Disk

Model Number	Description
D50-8	Disk / 50ml conical tube-capacity : 8ea
D15-16	Disk / 15ml conical tube-capacity : 16ea
D1.5-32	Disk / 1.5ml centrifuge tube-capacity : 32ea
D1.5-60	Disk / 1.5ml centrifuge tube-capacity : 60ea
D250-4	Disk / 250ml Flask-capacity: 4ea
PO-4	Post for disks

Roller Drum

Model Number	Description
RD16-151	Roller Drum / Up to 15mm Diameter tube-capacity : 151ea
RD18-104	Roller Drum / Up to 17mm Diameter tube-capacity : 104ea
RD25-42	Roller Drum / Up to 29mm Diameter tube-capacity : 42ea

Rotisseries (for HAG)

Model Number	Description
12RT-4	80mm Diameter 200mm length bottle-capacity : 4ea
12RT-6	60mm Diameter 200mm length bottle-capacity : 6ea
12RT-10	40mm Diameter 200mm length bottle-capacity : 10ea 40mm Diameter 120mm length bottle-capacity : 20ea
12RT-8V	50ml Conical tube-capacity : 8ea-vertical mount
12RT-16V	50ml Conical tube-capacity : 16ea-vertical mount
12RT-24H	50ml Conical tube-capacity : 24ea-horizontal mount
12RT-200-64	1.5ml Centrifuge tube-capacity : 64ea
12RT-200-96	1.5ml Centrifuge tube-capacity : 96ea
12RT-200-128	1.5ml Centrifuge tube-capacity : 128ea
12RT-300-120	1.5ml Centrifuge tube-capacity : 120ea
12RT-300-180	1.5ml Centrifuge tube-capacity : 180ea
12RT-300-240	1.5ml Centrifuge tube-capacity : 240ea
12RK-HAG	Rocking Platform(W285×D195×H65, tilt angle : ±7°)

ACCESSORIES (AG / HAG)

D1.5-32 · D1.5-60 · D15-16 · D50-8 · D250-4

RD16-151 · RD18-104 · RD25-42 · PO-4

ACCESSORIES (HAG)

12RT-4 · 12RT-6 · 12RT-10 · 12RT-8V · 12RT-16V

12RT-24H · 12RT200-64 · 12RT-200-96 · 12RT200-128 · 12RT300-120

12RT300-180 · 12RT300-240 · Silicon cap Bottle · 12RK-HAG

compact INCUBATOR™

• Optional use 2×6shelf

▶AR6

Heating · CE

▶ An examples to use
· DNA Extraction

■ AR6 / compact Incubator

· Digital microprocessor control[PID] for highest accuracy
- safety features:
· Flashing alarm lamp to warn over- temperature
· Over-temperature cut-out with safety thermostat

Specification

Model	AR6
Temp. Range	Ambient +5°C~65°C
Temp. Accuracy	±0.2°C
Temp. System	Air circulation (PID system)
Timer (temp.)	99hour 59min
Weight	13kg
Dimensions (mm)	Overall : W392×D405×H412 Internal : W310×D280×H270
Wattage	450W
Power	AC 100-240V (*220-230V : CE cent)
Frequency	50/60Hz

Accessories

Model Number	Description
6Shelf	Shelf (W300mm×D270mm)

ACCESSORY

6 shelf

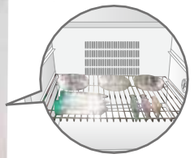
hybridization INCUBATOR™

▶ An examples to use
· Nothern blotting
· Southern blotting
· Immuno blotting
· DNA Extraction

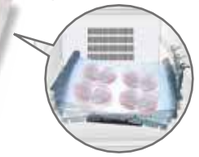
■ combi-V12 / Vertical type construction for efficient bench space

· A wide choice of rotisseries, especially large capacity rotisseries for small and large bottles
· Optional rocking platform of washing

• Optional use 2×shelf



• Optional use rocking platform for washing



▶combi-V12

Rotator · Rocker · Heating · CE

Specification

Model	combi-V12
Temp. Range	Ambient +5°C~80°C
Temp. Accuracy	±0.2°C
Timer (temp.)	99hour 59min
Rotational Speed	7 ~ 40 rpm
Material	Inside chamber : Stainless steel
Weight	30kg
Dimensions (mm)	Overall : W485×D425×H460 Internal : W365×D280×H286
Wattage	450W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz

Rotisseries

Model Number	Description
12RT-4	80mm Diameter×200mm length bottle - capacity : 4ea
12RT-8	60mm Diameter×200mm length bottle - capacity : 8ea
12RT-12	40mm Diameter×200mm length bottle - capacity : 12ea or 40mm Diameter×120mm length bottle - capacity : 24ea
12RT-8V	50ml Conical tube - capacity : 8ea - vertical mount
12RT-12V	50ml Conical tube - capacity : 12ea - vertical mount
12RT-16V	50ml Conical tube - capacity : 16ea - vertical mount
12RT-24H	50ml Conical tube - capacity : 24ea - horizontal mount
12RT200-64	1.5ml Centrifuge tube - capacity : 64ea
12RT200-96	1.5ml Centrifuge tube - capacity : 96ea
12RT200-128	1.5ml Centrifuge tube - capacity : 128ea

Bottles

Model Number	Description
BT40-120	40mm Diameter×120mm length bottle with silicon cap
BT40-200	40mm Diameter×200mm length bottle with silicon cap
BT60-200	60mm Diameter×200mm length bottle with silicon cap
BT80-200	80mm Diameter×200mm length bottle with silicon cap

Other Accessories

Model Number	Description
12H-DT	Drip Tray (W336×D250mm)
12RK-V	Rocking Platform (W285×D195×H65, tilt angle : ±7°)
HY-Bag	Hybridization Bag, Polypropylene (W160×D220mm)
12 Shelf	Shelf, Patridish : 6ea (W336×D250mm)

ACCESSORIES

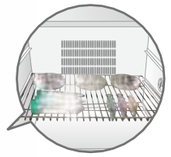
12RT-4 · 12RT-8 · 12RT-12 · 12RT-8V · 12RT-12V

12RT-16V · 12RT-24H · 12RT200-64 · 12RT200-96 · 12RT200-128

HY-Bag · 12H-DT · 12RK-V · Silicon cap Bottle · 12 shelf

www.finepcr.com

• Optional use 2×shelf



• Optional use rocking platform for washing

▶combi-H12

Rotator Rocker Heating CE

■ combi-H12 / Standard Incubator - high capacity rotisseries

· A wide choice of rotisseries, especially large capacity rotisseries for small and large bottles

■ combi-D24 / Dual chambers for multi-purpose application

· Dual chambers with independent controls

▶ Common facts

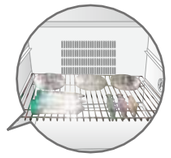
· Digital microprocessor control[PID] for highest accuracy
· Optional rocking platform for washing and shelves
· Rubber magnet sealed door
· Unique dual insulation construction for recovering the set temperature rapidly after opening the door

- safety features:

· Flashing alarm lamp to warn over- temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· Nothern blotting
· Southern blotting
· Immuno blotting
· DNA Extraction

• Optional use 4×shelf



• Optional use rocking platform for washing

▶combi-D24

Rotator Rocker Heating CE

Specification

Model	combi-H12	combi-D24
Temp. Range	Ambient +5°C~80°C	
Temp. Accuracy	±0.2°C	
Timer (temp.)	99hour 59min	
Rotational Speed	7 ~ 40 rpm	
Material	Inside chamber : Stainless steel	
Weight	26kg	51kg
Dimensions (mm)	Overall : W520×D420×H360 Internal : W365×D280×H286	Overall : W520×D420×H717 Internal : W365×D280×H286
Wattage	450W	900W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

Rotisseries

Model Number	Description
12RT-4	80mm Diameter×200mm length bottle - capacity : 4ea
12RT-8	60mm Diameter×200mm length bottle - capacity : 8ea
12RT-12	40mm Diameter×200mm length bottle - capacity : 12ea / or 40mm Diameter×120mm length bottle - capacity : 24ea
12RT-8V	50ml Conical tube - capacity : 8ea - vertical mount
12RT-12V	50ml Conical tube - capacity : 12ea - vertical mount
12RT-16V	50ml Conical tube - capacity : 16ea - vertical mount
12RT-24H	50ml Conical tube - capacity : 24ea - horizontal mount
12RT200-64	1.5ml Centrifuge tube - capacity : 64ea
12RT200-96	1.5ml Centrifuge tube - capacity : 96ea
12RT200-128	1.5ml Centrifuge tube - capacity : 128ea

Bottles

Model Number	Description
BT40-120	40mm Diameter×120mm length bottle with silicon cap
BT40-200	40mm Diameter×200mm length bottle with silicon cap
BT60-200	60mm Diameter×200mm length bottle with silicon cap
BT80-200	80mm Diameter×200mm length bottle with silicon cap

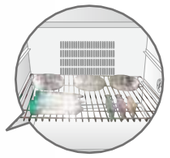
Other Accessories

Model Number	Description
12H-DT	Drip Tray (W336×D250mm)
12RK-H	Rocking Platform (W285×D195×H65, tilt angle :±7°)
HY-Bag	Hybridization Bag, Polypropylene (W160×D220mm)
12 Shelf	Shelf, Patridish : 6ea (W336×D250mm)

ACCESSORIES

12RT-4 · 12RT-8 · 12RT-12 · 12RT-8V · 12RT-12V
12RT-16V · 12RT-24H · 12RT200-64 · 12RT200-96 · 12RT200-128
HY-Bag · 12H-DT · 12RK-H · Silicon cap Bottle · 12 shelf

• Optional use 2×shelf



• Optional use rocking platform for washing

▶combi-SV12

Orbital Rotator Rocker Heating CE

■ combi-SV12 / Rotisseries and shaker in one unit

■ combi-SV120 / Shaking plate for high capacity & rotisseries all in one

· Simultaneous operation of the shaker and the upped rotisseries

▶ Common facts

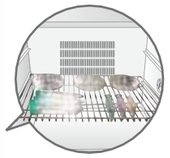
· Digital microprocessor control[PID] for highest accuracy
· Rubber magnet sealed door
· Orbital shaking platform with clamps for 6X250ml flasks
· A wide choice of rotisseries, especially large capacity rotisseries for small and large bottles
· Optional rocking platform for washing and shelves
· Unique dual insulation construction for recovering the set temperature rapidly after opening the door

- safety features:

· Flashing alarm lamp to warn over- temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· Nothern blotting
· Southern blotting
· Immuno blotting
· DNA Extraction

• Optional use 4×shelf



• Optional use rocking platform for washing

▶combi-SV120

Orbital Rotator Rocker Heating CE

Specification

Model		combi-SV12	combi-SV120
Temp. Range		Ambient +5°C~80°C	
Temp. Accuracy		±0.2°C	
Speed	Rotation	7 ~ 40 rpm	
	shaker	40 ~ 300 rpm	
Timer (temp.)		99hour 59min	
Material		Inside chamber : Stainless steel	
Weight		36kg	46kg
Dimensions (mm)		Overall : W485×D425×H460 Internal : W365×D280×H286	Overall : W485×D425×H720 Internal : W363×D278×H545
Wattage		450W	900W
Power		AC 100-240V (*220-230V : CE cert)	
Frequency		50/60Hz	

Rotisseries

Model Number	Description
12RT-4	80mm Diameter×200mm length bottle - capacity : 4ea
12RT-8	60mm Diameter×200mm length bottle - capacity : 8ea
12RT-12	40mm Diameter×200mm length bottle - capacity : 12ea / or 40mm Diameter×120mm length bottle - capacity : 24ea
12RT-8V	50ml Conical tube - capacity : 8ea - vertical mount
12RT-12V	50ml Conical tube - capacity : 12ea - vertical mount
12RT-16V	50ml Conical tube - capacity : 16ea - vertical mount
12RT-24H	50ml Conical tube - capacity : 24ea - horizontal mount
12RT200-64	1.5ml Centrifuge tube - capacity : 64ea
12RT200-96	1.5ml Centrifuge tube - capacity : 96ea
12RT200-128	1.5ml Centrifuge tube - capacity : 128ea

Bottles

Model Number	Description
BT40-120	40mm Diameter×120mm length bottle with silicon cap
BT40-200	40mm Diameter×200mm length bottle with silicon cap
BT60-200	60mm Diameter×200mm length bottle with silicon cap
BT80-200	80mm Diameter×200mm length bottle with silicon cap

Other Accessories

Model Number	Description
12H-DT	Drip Tray (W336×D250mm)
12RK-SV	Rocking Platform (W285×D195×H65, tilt angle : ±7°)
HY-Bag	Hybridization Bag, Polypropylene (W160×D220mm)
FR250-6	Shaking platform(W336×D250)for 250ml flask-capacity:6ea
STB3320	Shaking platform(W336×D250mm)
12 Shelf	Shelf, Patridish:6ea (W336×D250mm)

ACCESSORIES

12RT-4 · 12RT-8 · 12RT-12 · 12RT-8V · 12RT-12V
12RT-16V · 12RT-24H · 12RT200-64 · 12RT-200-96 · 12RT200-128
HY-Bag · 12H-DT · 12RK-SV · Silicon cap Bottle · FR250-6
12 shelf · STB3320

■ High temperature heating without oil and water

· Digital microprocessor control [PID] for highest accuracy
· Various of interchangeable insert blocks
· Block combined with the close fit of the tubes for efficient heat transfer
· Special thicker blocks guarantee excellent temperature stability
· Standard flat covers for protecting the user from heat
- safety features:
· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· DNA Extraction

▶ALB64

Heating Digital

▶ALB128

Heating Digital

※Various types of blocks are available upon special request

Specification

Model	ALB 64	ALB 128
Temp. Range	Ambient +5°C~150°C	
Temp. Accuracy	±0.2°C	
Timer (temp.)	99hour 59min	
Heating Method	Cartridge Heater	
Capacity	1Block	2Block
Material	Heating plate and sample block : Aluminum Inside : Stainless steel	
Weight	4kg(without block)	7kg(without block)
Dimensions (mm)	W148×D230×H170	W238×D230×H170
Wattage	250W	600W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

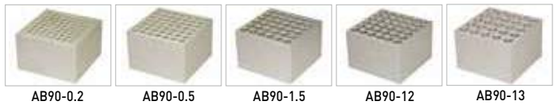
Block

AB90-0.2	Block / 0.2ml centrifuge tube (90×90×H60) - capacity : 64ea
AB90-0.5	Block / 0.5ml centrifuge tube (90×90×H60) - capacity : 49ea
AB90-1.5	Block / 1.5ml centrifuge tube (90×90×H60) - capacity : 36ea
AB90-12	Block / 12øTest tube (90×90×H60) - capacity : 36ea
AB90-13	Block / 13øTest tube (90×90×H60) - capacity : 25ea
AB90-15	Block / 15øTest tube (90×90×H60) - capacity : 25ea
AB90-16.5	Block / 16.5øTest tube (90×90×H60) - capacity : 20ea
AB90-18	Block / 18øTest tube (90×90×H60) - capacity : 20ea
AB90-C15	Block / 15ml conical tube (90×90×H80) - capacity : 9ea
AB90-C50	Block / 50ml conical tube (90×90×H80) - capacity : 5ea

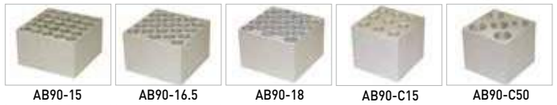
Other Accessories

Model Number	Description
JD90	Block transfer tool
GB90	Ball bath (with zinc ball)
CV64-80	High cover for Test tube (W116×D116×H120mm)
CV128-80	High cover for Test tube (W206×D116×H120mm)

ACCESSORIES



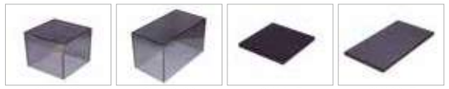
AB90-0.2 AB90-0.5 AB90-1.5 AB90-12 AB90-13



AB90-15 AB90-16.5 AB90-18 AB90-C15 AB90-C50

GB-90(Ball bath) JD-90

Cover



CV64-80 CV128-80 CV64-F CV128-F

www.finepcr.com

■ Special thicker blocks guarantee excellent temperature stability

· Digital microprocessor control [PID] for highest accuracy
· Various of interchangeable insert blocks
· Block combined with the close fit of the tubes for efficient heat transfer
· Standard flat covers for protecting the user from heat
- safety features:
· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· DNA Extraction

▶ALB-H4

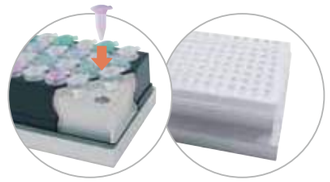
Heating Digital

▶ALB-H2

Heating Digital

▶ALB-H1

Heating Digital



1.5ml-24 tubes micro well plate (or pcr plate)

※Various types of blocks are available upon special request

Specification

Model	ALB-H1	ALB-H2	ALB-H4
Temp. Range	Ambient +5°C~150.0°C		
Temp. Accuracy	±0.2°C		
Timer (temp.)	99hour 59min		
Heating Method	cartridge Heater		
Block Capacity	1 Block	2 Block	4 Block
Material	Heating plate and sample block : Aluminum Inside : Stainless steel		
Dimensions(mm)	W205×D263×H163	W205×D360×H163	W335×D360×H163
Wattage	310W	610W	1200W
Weight	3kg (without block)	6kg (without block)	10kg (without block)
Power	AC 100-240V (*220-230V : CE cert)		
Frequency	50/60Hz		

Block

Model Number	Description
AB100-96	Block / 96PCR plate - capacity : 1ea or 8 strip tube - capacity : 12ea
AB100-0563	Block / 0.5ml centrifuge tube - capacity : 63ea
AB100-1548	Block / 1.5ml centrifuge tube - capacity : 48ea
AB100-1524	Block / 1.5ml centrifuge tube - capacity : 24ea with tube rack
AB100-1516	Block / 15ml conical tube - capacity : 16ea
AB100-508	Block / 50ml conical tube - capacity : 8ea

Other Accessories

Model Number	Description
JD90	Block transfer tool
CVH1-80	High cover for conical tube (W154×D125×H76mm)
CVH2-80	High cover for conical tube (W225×D154×H76mm)
CVH4-80	High cover for conical tube (W283×D225×H76mm)

ACCESSORIES

AB100-1524(with Rack) AB100-0563 AB100-1548 AB100-96

AB100-508 AB100-1516 JD-90

Cover

CVH4-80 CVH2-80 CVH1-80

CVH4-F CVH2-F CVH1-F

■ Cooling and heating in one unit

· Digital microprocessor control [PID] for highest accuracy
· Independent cooling and heating systems for years of trouble-free operation
· Various of interchangeable insert blocks
· Block combined with the close fit of the tubes for efficient heat transfer
· Special thicker blocks guarantee excellent temperature stability
- safety features:
· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· DNA / RNA Extraction

▶ALB6400

Heating Cooling Digital

Specification

Model	ALB 6400
Temp. Range	0°C - 120°C
Temp. Accuracy	±0.2°C
Timer (temp.)	99hour 59min
Cooling Method	Peltier
Heating Method	Cartridge heater
Block Capacity	1 Block
Material	Heating plate and sample block : Aluminum Inside : Stainless steel
Weight	8kg (without block)
Dimensions (mm)	W190×D278×H237
Wattage	300W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz

Block

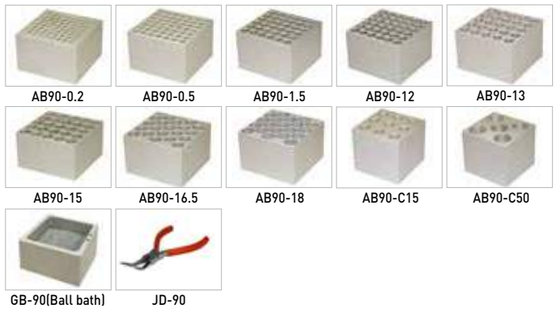
Model Number	Description
AB90-0.2	Block / 0.2ml centrifuge tube (90×90×H60) - capacity : 64ea
AB90-0.5	Block / 0.5ml centrifuge tube (90×90×H60) - capacity : 49ea
AB90-1.5	Block / 1.5ml centrifuge tube (90×90×H60) - capacity : 36ea
AB90-12	Block / 12øTest tube (90×90×H60) - capacity : 36ea
AB90-13	Block / 13øTest tube (90×90×H60) - capacity : 25ea
AB90-15	Block / 15øTest tube (90×90×H60) - capacity : 25ea
AB90-16.5	Block / 16.5øTest tube (90×90×H60) - capacity : 20ea
AB90-18	Block / 18øTest tube (90×90×H60) - capacity : 20ea
AB90-C15	Block / 15ml conical tube (90×90×H80) - capacity : 9ea
AB90-C50	Block / 50ml conical tube (90×90×H80) - capacity : 5ea

Other Accessories

Model Number	Description
JD90	Block transfer tool
GB90	Ball bath (with zinc ball)
CV6400-80	High cover for test tube (W116×D116×H120mm)

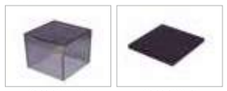
※Various types of blocks are available upon special request

ACCESSORIES



AB90-0.2 AB90-0.5 AB90-1.5 AB90-12 AB90-13
AB90-15 AB90-16.5 AB90-18 AB90-C15 AB90-C50
GB-90(Ball bath) JD-90

Cover



CV6400-80 CV6400-F

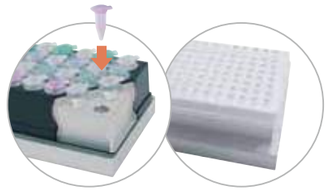
■ Special thicker blocks guarantee excellent temperature stability

· Digital microprocessor control [PID] for highest accuracy
· Various of interchangeable insert blocks
· Block combined with the close fit of the tubes for efficient heat transfer
· Standard flat covers for protecting the user from heat
- safety features:
· Flashing alarm lamp to warn over-temperature
· Over-temperature cut-out with safety thermostat

▶ An examples to use
· DNA / RNA Extraction

▶ALB-C1

Heating Cooling Digital



1.5ml-24 tubes micro well plate (or pcr plate)

※Various types of blocks are available upon special request

ACCESSORIES

AB100-1524(with Rack) AB100-0563 AB100-1548 AB100-96
AB100-508 AB100-1516 JD-90

Cover

CVC1-80 CVC1-F

Specification

Model	ALB-C1
Temp. Range	0°C - 120°C
Temp. Accuracy	±0.2 °C
Timer (temp.)	99hour 59min
Cooling Method	Peltier
Heating Method	Cartridge heater
Block Capacity	1 Block
Material	Heating plate and sample block : Aluminum Inside : Stainless steel
Weight	11.5kg (without block)
Dimensions (mm)	W215×D327×H215
Wattage	360W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz

Block

Model Number	Description
AB100-96	Block / 96PCR plate - capacity : 1ea or 8 strip tube - capacity : 12ea
AB100-0563	Block / 0.5ml centrifuge tube - capacity : 63ea
AB100-1548	Block / 1.5ml centrifuge tube - capacity : 48ea
AB100-1524	Block / 1.5ml centrifuge tube - capacity : 24ea with tube rack
AB100-1516	Block / 15ml conical tube - capacity : 16ea
AB100-508	Block / 50ml conical tube - capacity : 8ea

Other Accessories

Model Number	Description
JD90	Block transfer tool
CVC1-80	High cover for conical tube (W154×D125×H76mm)

gel eluter EXELUTOR

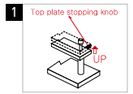
■ Economic & quick equipment with the high yield

· 95% elution within 4minutes (DNA, RNA)
· Sturdy, small and easy to handle
· 6 different samples can be applied simultaneously
· 0.2 ~ 0.5ml of buffer is sufficient for elution (high concentration)

▶ An examples to use
· DNA / RNA extraction from agarose gel

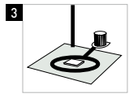
▶PAK6 CE

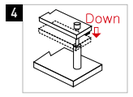
HOW TO USE

1 

Lift up the top plate and fix it up by the stopping knob.

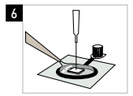
2
Place the disposable parafilm under the electronic ring.

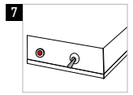
3 
Place a gel slice on the center of the electronic ring.

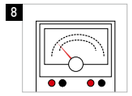
4 

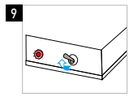
Lift the top plate down.

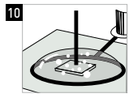
5
The Electrode should be touched on the gel slice.

6 
Add the buffer out inside the electronic ring enough to cover the gel slice.

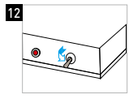
7 
Confirm the switch and the lamp off. Connect power supply

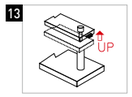
8 
Control the voltage in the between 20V ~ 30V on power supply. If the voltage is over 50V, the lamp and electrode could defected.

9 
Turn on the switch.

10 
Small bubbles will arise from the gel slice.

11
Using UV lamp (long wave). The DNA coming out from gel slice could be seen.

12 
After 2 ~ 4min, turn out the switch.

13 

Lift the top plate.

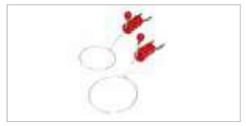
14
Take the buffer

Specification

Model	PAK6
Applicable Sample	ds DNA, ss RNA, Protein
Electro-rod & Electro-Ring	Platinum
Capacity	6 sample
Dimensions (mm)	W290xD135xH150
Weight	1.8kg

▷It is possible to purify samples within an hour. You can apply agarose and polyacrylamide gel slices including nucleic acide or protein on the EXELUTOR Pak6 and apply at 20 ~ 30V for 2 ~ 4min.
▷In case of incomplete elution, a second attempt can be made by replacing the buffers.
▷The Elution time is flexible according to the kinds and sizes of samples and in case of linear DNA, 4min is sufficient for the size up to 10kb.
Eluted DNA can be extracted with phenol / chloroform once and then ethanol-precipitated according to the routine methods. High yield of more than 90%.
▷Since disposable parafilm is used for the sample plate, you don't have to worry about contamination.
▷0.2~0.5ml of buffer is sufficent for elution.
▷There is nearly no trouble.
▷It is easy to handle.

ACCESSORIES


PT-Ring

PT-Rod

magnetic STIRRER

■ Low profile - High performance

· Multi-position magnetic stirrer, without heating
· High quality DC brushless motor for quiet and powerful stirring
· Variable speed control from 0 to 1,300rpm
· Stainless steel top plate for the protection against the penetration of liquids
· Stable low profile body for convenient and safe experiment

▶ST5 CE Stirring

▶ST10 CE Stirring

Specification

Model	ST5	ST10
Speed Range	0 ~1300rpm	
Distance Between Stirring Point	90mm	
Capacity	One point Maximum - 2L	
	250ml - 5ea	250ml - 10ea
Weight	3kg	5kg
Dimensions (mm)	W115×D560×H65	W200×D560×H65
Wattage	15W	30W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

Heat Sealer

▶SK210 CE Sealing ▶SK310 CE Sealing

■ Compact and easy to use

· SK-series fits nearly everywhere for world-wide use in laboratory.
· Polyethylene, polypropylene films can be easily sealed.
· Easy to handle with convenient and reasonable structure.
· Powerful transformer and high quality circuit components guarantee years operation.

ACCESSORIES

Teflon cloth

Heating element

Specification

Model	SK210	SK310
Available Resin	polyethylene, polypropylene	
Sealing Width	2mm	
Sealing Length	200mm(7.9")	300mm(11.8")
Weight	3.4kg	5kg
Dimensions (mm)	W320×D85×H160	W455×D85×H175
Wattage	380W	390W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	