

SUBMARINER

Gel size: 23 (w) x 5, 10, 15, 20#, 25 (l) cm

For DNA and protein separation

SUBMARINER-R

Gel size: 23 (w) x 5, 10, 15, 20#, 25 (l) cm

For RNA, DNA and protein separation

System has higher resistance to cleaning agents

SUBMARINER-RC

Gel size: 23 (w) x 5, 10, 15, 20#, 25 (l) cm

For RNA, DNA and protein separation

System has higher resistance to cleaning agents with ports for cooling and buffer solution

SUBMARINER-Mini

Gel size: 23 (w) x 5, 10, 15# (l) cm

For RNA, DNA and protein separation



Submariner (representational image)

- ✓ UV-transparent tray with gel gripping design
- ✓ Uni-directional migration
- ✓ Comb with teeth spacing compatible with multi-channel micropipettes available

- ✓ No. of samples (standard): [1-70] x 11 combs
- ✓ No. of samples (mini): [1-70] x 6 combs
- ✓ Buffer requirement: 1800 mL (standard), 1000 mL (mini)

#gel size with ready-to-use system

Features of this apparatus

Leak-Proof

- Buffer does not leak through plastic joints as bonding is done with special glues manufactured in-house
- crazing of plastic minimized as high quality plastic tolerates short exposure to cleaning reagents used in RNA analysis

Rugged

- Electrodes do not break as they are thick and platinum is >99.9% pure
- No electrolytic corrosion of male connector as base is resin filled
- Metal screws on comb-stands that do not break with extensive usage

Error Minimization

- Wells do not break as comb-stand will not move sideways during comb removal
- Samples migrate correctly due to uni-directional migration feature & colour coding
- Sample migration is straight as combstand & tray are aligned & locked in place

Sensitivity & Resolution

- UV-transparent tray has more than 95% UV transparency and gives enhanced sensitivity of DNA detection
- Improved band resolution as wells can be cast near the starting edge for longer running length

Economical

- Run greater number of samples using two/ four combs per tray
- Can be run higher at higher voltages for quicker runs and hence faster turn-around time
- Saves reagent & operator cost as leakage and errors are prevented

Ready-to-use system includes

	17-00232 For DNA & protein	17-00235 For DNA, RNA & protein	17-00236 For DNA, RNA & protein with cooling	17-00233 For DNA, RNA & protein
1. Tank with electrodes and male connectors mounted at an angle	Y	Y	Y	Y
2. UV-transparent tray with gel gripping design, 23 (w) x 20 (l) cm	Y	Y	Y	-
3. UV-transparent tray with gel gripping design, 23 (w) x 15 (l) cm	-	-	-	Y
4. Comb stand with positioning pins and metal screws for adjusting comb height	Y	Y	Y	Y
5. PMMA comb (54 wells, 1.5 mm thick)	Y	Y	Y	Y
6. Gel slicer	Y	Y	Y	Y
7. Niche cleaner	Y	Y	Y	Y
8. Lid	Y	Y	Y	Y
9. Electrical cords with male & female connectors designed for user safety (one pair)	Y	Y	Y	Y
10. Instruction manual	Y	Y	Y	Y

Ordering description

Submariner (17-00232): Horizontal apparatus for nucleic acid and protein separations: fabricated to tolerate cleaning reagents used in RNA analysis, with gel gripping UV-transparent tray, male connectors mounted at an angle and uni-directional migration, gel size 23 (w) x 25 (l) cm.

Submariner-R (17-00235): Horizontal apparatus for nucleic acid and protein separations: fabricated to tolerate cleaning reagents used in RNA analysis, with gel gripping UV-transparent tray, male connectors mounted at an angle and uni-directional migration, gel size 23 (w) x 25 (l) cm.

Submariner-RC (17-00236): Horizontal apparatus for nucleic acid and protein separations: fabricated to tolerate cleaning reagents used in RNA analysis, with gel gripping UV-transparent tray, male connectors mounted at an angle and uni-directional migration, ports for cooling and buffer circulation, gel size 23 (w) x 25 (l) cm.

Submariner-mini (17-00233): Horizontal apparatus for nucleic acid and protein separations: fabricated to tolerate cleaning reagents used in RNA analysis, with gel gripping UV-transparent tray, male connectors mounted at an angle and uni-directional migration, ports for cooling and buffer circulation, gel size 23 (w) x 15 (l) cm.

SUGGESTION

Order along with ready-to-use system

Extra Comb stands (17-07171),
Gel-casting chamber (17-25252),
Extra combs, Extra trays

Submariner and its spares and accessories

Item Description	Cat. No.	Unit
Submariner, ready-to-use system	17-00232	System
Submariner-R, ready-to-use system	17-00235	System
Submariner-RC, ready-to-use system	17-00236	System
Submariner-mini, ready-to-use system	17-00233	System
UV-opaque tray [gel size 23 (w) x 5 (l) cm]	17-02051	Piece
UV-transparent tray of gel gripping design [gel size 23 (w) x 5 (l) cm]	17-02052	Piece
UV-opaque tray [gel size 23 (w) x 10 (l) cm]	17-02101	Piece
UV-transparent tray of gel gripping design [gel size 23 (w) x 10 (l) cm]	17-02102	Piece
UV-opaque tray [gel size 23 (w) x 15 (l) cm]	17-02151	Piece
UV-transparent tray of gel gripping design [gel size 23 (w) x 15 (l) cm]	17-02152	Piece
UV-opaque tray [gel size 23 (w) x 20 (l) cm]	17-02201	Piece
UV-transparent tray of gel gripping design [gel size 23 (w) x 20 (l) cm]	17-02202	Piece
Comb stand with positioning pins and metal screws for adjusting comb height	17-07171	Piece
Comb 1 mm thick , PMMA, 17 wells/228 mm	17-09171	Piece
Comb 1.5 mm thick , PMMA, 17 wells/ 228 mm	17-09172	Piece
Comb 2 mm thick , PMMA, 17 wells/ 228 mm	17-09173	Piece
Comb 1 mm thick , multichannel pipette compatible, PMMA, 26 wells/228 mm	17-09261	Piece
Comb 1.5 mm thick , multichannel pipette compatible, PMMA, 26 wells/228 mm	17-09262	Piece
Comb 2 mm thick , multichannel pipette compatible, PMMA, 26 wells/228 mm	17-09263	Piece
Comb 1 mm thick , PMMA, 37 wells/228 mm	17-09371	Piece
Comb 1.5 mm thick , PMMA, 37 wells/ 228 mm	17-09372	Piece
Comb 2 mm thick , PMMA, 37 wells/ 228 mm	17-09373	Piece
Comb 1 mm thick , PMMA, 40 wells/228 mm	17-09401	Piece
Comb 1.5 mm thick , PMMA, 40 wells/ 228 mm	17-09402	Piece
Comb 2 mm thick , PMMA, 40 wells/ 228 mm	17-09403	Piece

Item Description	Cat. No.	Unit
Comb 1 mm thick , multichannel pipette compatible, PMMA, 50 wells/228 mm	17-09501	Piece
Comb 1.5 mm thick , multichannel pipette compatible, PMMA, 50 wells/228 mm	17-09502	Piece
Comb 2 mm thick , multichannel pipette compatible, PMMA, 50 wells/228 mm	17-09503	Piece
Comb 1 mm thick , PMMA, 70 wells/228 mm	17-09701	Piece
Comb 1.5 mm thick , PMMA, 70 wells/ 228 mm	17-09702	Piece
Comb 2 mm thick , PMMA, 70 wells/ 228 mm	17-09703	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 1 wells/ 228 mm	17-PS101	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 2 wells, ladder in the centre/ 228 mm	17-PM102	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 2 wells, ladder at the end/ 228 mm	17-PS102	Piece
Comb, preparative 2 mm thick, PMMA, 2 + 2 wells, ladder at both the ends/ 228 mm	17-PS202	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 4 wells, ladder in the centre/ 228 mm	17-PM104	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 4 wells, ladder at the end/ 228 mm	17-PS104	Piece
Comb, preparative 2 mm thick, PMMA, 2 + 4 wells, ladder at both the ends/ 228 mm	17-PS204	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 6 wells, ladder in the centre/ 228 mm	17-PM106	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 6 wells, ladder at the end/ 228 mm	17-PS106	Piece
Comb, preparative 2 mm thick, PMMA, 2 + 6 wells, ladder at both the ends/ 228 mm	17-PS206	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 8 wells, ladder in the centre/ 228 mm	17-PM108	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 8 wells, ladder at the end/ 228 mm	17-PS108	Piece
Comb, preparative 2 mm thick, PMMA, 2 + 8 wells, ladder at both the ends/ 228 mm	17-PS208	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 10 wells, ladder in the centre/ 228 mm	17-PM110	Piece
Comb, preparative 2 mm thick, PMMA, 1 + 10 wells, ladder at the end/ 228 mm	17-PS110	Piece
Comb, preparative 2 mm thick, PMMA, 2 + 10 wells, ladder at both the ends/ 228 mm	17-PS210	Piece
Gel casting chamber for tray 23 cm (w) and varying length up to 25 cm	17-25252	Piece
Screws for gel casting chamber (2 No.)	17-26088	Packet
Gel slicer, breakage resistant, 22.5 (w) x 25 (l) cm	63-05270	Piece
Niche cleaner	64-06075	Piece
Electrical cords with male & female connectors designed for user safety	66-40124	Pair
Penta-legged levelling table (28 x 45 cm) with spirit-level	69-41459	Set
Submariner tank. Replacement part for horizontal apparatus for DNA and protein separations	17-01232	Piece
Submariner-R tank. Replacement part for horizontal apparatus for nucleic acid and protein separations, fabricate to tolerate cleaning reagents used in RNA analysis	17-01235	Piece
Submariner-RC tank. Replacement part for horizontal apparatus for nucleic acid and protein separations, fabricate to tolerate cleaning reagents used in RNA analysis, with ports for buffer circulation and cooling of gel for fast electrophoresis	17-01236	Piece
Submariner-mini tank. Replacement part for horizontal apparatus for DNA and protein separations	17-01233	Piece
Submariner lid. Replacement part for horizontal apparatus for DNA and protein separation	17-12320	Piece
Submariner-mini lid. Replacement part for horizontal apparatus for DNA and protein separation	17-12321	Piece