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SYMBOLS USED IN THIS GUIDE


Autoclavable


USB

Guarantee

IPS 4


Ethernet

PerfectBlue gel system, Mini S

The smallest of all the PerfectBlue electrophoresis systems, the Mini S can be used for up to 24 samples enabling short and rapid sample separation. This model includes all the features of the larger models, including direct chamber gel casting and embedded platinum electrodes, and is supplied ready to use with lid, power leads, two combs and a gel tray with an easy to read ruler.

*Based on an agarose gel of approximately 5 mm thickness

System is supplied with 2 combs (6 and 10 teeth, 1,5 mm thickness) as standard.

Model	Mini S
Gel size W×L (mm)	70×80
Gel volume (ml)	~30*
Buffer volume (ml)	~400
Run time (min)	≥30
Unit W×L×H (mm)	120×160×95

Description	Pk	Cat. No.
PerfectBlue gel system Mini S	1	700-0741

Description	Pk	Cat. No.
Combs		
Standard comb, 1,0 mm, 5 teeth, 42 µl*	1	700-0746
Standard comb, 1,5 mm, 5 teeth, 64 µl*	1	700-0747
Standard comb, 1,0 mm, 6 teeth, 34 µl*	1	700-0748
Standard comb, 1,5 mm, 6 teeth, 51 µl*	1	700-0749
Standard comb, 1,0 mm, 8 teeth, 24 µl*	1	700-0750
Standard comb, 1,5 mm, 8 teeth, 36 µl*	1	700-0751
Standard comb, 1,0 mm, 10 teeth, 18 µl*	1	700-0742
Standard comb, 1,5 mm, 10 teeth, 26 µl*	1	700-0743
Standard comb, 1,0 mm, 12 teeth, 14 µl*	1	700-0744
Standard comb, 1,5 mm, 12 teeth, 21 µl*	1	700-0745
Preparative comb, 1,5 mm, 2 teeth, 320/28 µl*	1	700-0756
Accessories		
Casting chamber for max. 3 gels	1	700-0753
UV transparent gel tray with gaskets	1	700-0757
Replacement gaskets for gel tray	1 PAIR	700-0754

PerfectBlue gel system, Mini M

The PerfectBlue Mini M electrophoresis system is a very convenient size for a wide range of routine uses. Supplied with two combs, but with a wide range of standard and microtitre combs available, this system can be used for the separation of up to 36 samples. The system comes 'ready to use' with lid, power leads and a gel tray. Its high specification construction and embedded platinum electrodes provide high quality results time after time.

*Based on an agarose gel of approximately 5 mm thickness

System is supplied with 2 combs (10 and 14 teeth, 1,5 mm thickness) as standard.

Description	Pk	Cat. No.
PerfectBlue gel system Mini M	1	700-0758

Description	Pk	Cat. No.
Combs		
Standard comb, 1,0 mm, 5 teeth, 58 µl*	1	700-0767
Standard comb, 1,5 mm, 5 teeth, 86 µl*	1	700-0768
Standard comb, 1,0 mm, 8 teeth, 34 µl*	1	700-0769
Standard comb, 1,5 mm, 8 teeth, 51 µl*	1	700-0770
Standard comb, 1,0 mm, 10 teeth, 25 µl*	1	700-0759
Standard comb, 1,5 mm, 10 teeth, 38 µl*	1	700-0760
Standard comb, 1,0 mm, 12 teeth, 20 µl*	1	700-0761
Standard comb, 1,5 mm, 12 teeth, 30 µl*	1	700-0762
Standard comb, 1,0 mm, 14 teeth, 16 µl*	1	700-0763
Standard comb, 1,5 mm, 14 teeth, 25 µl*	1	700-0764

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 9 teeth, 27 µl*	1	700-0771
Microtitre comb, 1,5 mm, 9 teeth, 40 µl*	1	700-0772
Microtitre comb, 1,0 mm, 18 teeth, 11 µl*	1	700-0765
Microtitre comb, 1,5 mm, 18 teeth, 16 µl*	1	700-0766
Preparative comb, 1,5 mm, 2 teeth, 439/28 µl*	1	700-0775
Accessories		
Casting chamber for max. 3 gels	1	700-0773
UV transparent gel tray with gaskets	1	700-0776
Replacement gaskets for gel tray	1 PAIR	700-0774

PerfectBlue gel system, Mini L 'Revolution'

The 'Revolution' series includes a buffer circulation system, powered by the electrodes themselves. Hydrogen bubbles produced at the cathode pass up a diagonally positioned pipe connected to the two sides of the tank producing a gentle circulation of the buffer. The result is no pH and ionic gradient – without need of mechanical pumps.

*Based on an agarose gel of approximately 5 mm thickness

System is supplied with 2 combs (12 and 20 teeth, 1,5 mm thickness) as standard.

Model	Mini L Revolution
Gel size W×L (mm)	120×140
Sample capacity	8 – 100
Gel volume (ml)	85*
Buffer volume (ml)	~800
Run time (min)	≥60
Unit W×L×H (mm)	170×250×95

Description	Pk	Cat. No.
PerfectBlue gel system Mini L 'Revolution'	1	**700-0799**

Description	Pk	Cat. No.
Combs		
Standard comb, 1,0 mm, 8 teeth, 47 µl*	1	**700-0788**
Standard comb, 1,5 mm, 8 teeth, 70 µl*	1	**700-0789**
Standard comb, 1,0 mm, 16 teeth, 20 µl*	1	**700-0780**
Standard comb, 1,5 mm, 16 teeth, 30 µl*	1	**700-0781**
Standard comb, 1,0 mm, 20 teeth, 15 µl*	1	**700-0782**
Standard comb, 1,5 mm, 20 teeth, 22 µl*	1	**700-0783**
Standard comb, 1,0 mm, 24 teeth, 11 µl*	1	**700-0784**
Standard comb, 1,5 mm, 24 teeth, 17 µl*	1	**700-0785**
Microtitre comb, 1,0 mm, 9 teeth, 27 µl*	1	**700-0790**
Microtitre comb, 1,5 mm, 9 teeth, 40 µl*	1	**700-0791**
Microtitre comb, 1,0 mm, 12 teeth, 27 µl*	1	**700-0778**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,5 mm, 12 teeth, 40 µl*	1	**700-0779**
Microtitre comb, 1,0 mm, 25 teeth, 11 µl*	1	**700-0786**
Microtitre comb, 1,5 mm, 25 teeth, 16 µl*	1	**700-0787**
Preparative comb, 1,5 mm, 2 teeth, 596/28 µl*	1	**700-0795**
Accessories		
Casting chamber for max. 3 gels	1	**700-0792**
Gaskets	1 PAIR	**700-0793**
Gel tray L12, UV transparent gel tray with gaskets, for up to 12 combs	1	**700-0796**
Gel tray L4, UV transparent gel tray with gaskets, for up to 4 combs	1	**700-0797**

PerfectBlue gel system, Mini L

Capable of running 12×14 cm gels, the largest of the 'Mini' range still offers the convenience of direct gel casting in the tray, in an easy to manage product size for reliable, high quality electrophoresis. This system can be supplied with a choice of gel trays suitable for 2, 4 or 12 combs, and an expansive range of standard and microtitre combs, making this versatile system appropriate for both routine and small separation electrophoresis.

*Based on an agarose gel of approximately 5 mm thickness

System is supplied with gasketed UV transmissible (UVT) gel tray (L4) with 4 comb positions and 2 combs (12 and 20 teeth, 1,5 mm thickness) as standard.

Model	Mini L
Gel size W×L (mm)	120×140
Sample capacity	8 – 100
Gel volume (ml)	~85*
Buffer volume (ml)	~800
Run time (min)	≥60
Unit W×L×H (mm)	170×250×95

Description	Pk	Cat. No.
PerfectBlue gel system Mini L	1	**700-0777**

Description	Pk	Cat. No.
Combs		
Standard comb, 1,0 mm, 8 teeth, 47 µl*	1	**700-0788**
Standard comb, 1,5 mm, 8 teeth, 70 µl*	1	**700-0789**
Standard comb, 1,0 mm, 16 teeth, 20 µl*	1	**700-0780**
Standard comb, 1,5 mm, 16 teeth, 30 µl*	1	**700-0781**
Standard comb, 1,0 mm, 20 teeth, 15 µl*	1	**700-0782**
Standard comb, 1,5 mm, 20 teeth, 22 µl*	1	**700-0783**
Standard comb, 1,0 mm, 24 teeth, 11 µl*	1	**700-0784**
Standard comb, 1,5 mm, 24 teeth, 17 µl*	1	**700-0785**
Microtitre comb, 1,0 mm, 9 teeth, 27 µl*	1	**700-0790**
Microtitre comb, 1,5 mm, 9 teeth, 40 µl*	1	**700-0791**
Microtitre comb, 1,0 mm, 12 teeth, 27 µl*	1	**700-0778**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,5 mm, 12 teeth, 40 µl*	1	**700-0779**
Microtitre comb, 1,0 mm, 25 teeth, 11 µl*	1	**700-0786**
Microtitre comb, 1,5 mm, 25 teeth, 16 µl*	1	**700-0787**
Preparative comb, 1,5 mm, 2 teeth, 596/28 µl*	1	**700-0795**
Accessories		
Casting chamber for max. 3 gels	1	**700-0792**
Gaskets	1 PAIR	**700-0793**
Gel tray L12, UV transparent gel tray with gaskets, for up to 12 combs	1	**700-0796**
Gel tray L4, UV transparent gel tray with gaskets, for up to 4 combs	1	**700-0797**

PerfectBlue gel system, Midi S

Capable of rapidly running up to 160 samples, the Midi S is a compact, but highly efficient, electrophoresis system. Versatility is built-in, with six different comb positions and a choice of 10 different comb types and thicknesses available. For rapid handling, special microtitre combs enable rapid loading with a multichannel pipette, while the effective rubber sealed 'end gates' allow gel pouring right in the tray. With its sturdy design and straight electrodes, the results are clear, crisp and quick, free from 'smiling' bands.

*Based on an agarose gel of approximately 5 mm thickness

Supplied with four combs (1,5 mm thickness, 2×17 and 2×34 teeth), lid, gel tray, tank, cables and 'end gates' for gel pouring.

Model	Midi S
Gel size W×L (mm)	150×150
Sample capacity	10 – 160
Gel volume (ml)	~120*
Buffer volume (ml)	~1000
Run time (min)	≥45
Unit W×L×H (mm)	215×275×100

Description	Pk	Cat. No.
PerfectBlue gel system Midi S	1	**700-0814**

Description	Pk	Cat. No.
Combs		
Standard comb, 1,0 mm, 10 teeth, 30 µl*	1	**700-0815**
Standard comb, 1,5 mm, 10 teeth, 46 µl*	1	**700-0816**
Standard comb, 1,0 mm, 20 teeth, 13 µl*	1	**700-0817**
Standard comb, 1,5 mm, 20 teeth, 20 µl*	1	**700-0818**
Standard comb, 1,0 mm, 40 teeth, 5 µl*	1	**700-0819**
Standard comb, 1,5 mm, 40 teeth, 7 µl*	1	**700-0820**
Microtitre comb, 1,0 mm, 34 teeth, 6 µl*	1	**700-0825**
Microtitre comb, 1,5 mm, 34 teeth, 9 µl*	1	**700-0826**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 17 teeth, 16 µl*	1	**700-0827**
Microtitre comb, 1,5 mm, 17 teeth, 24 µl*	1	**700-0828**
Accessories		
Casting dam, aluminium, for shorter gel length	1	**700-0821**
End gates, for gel pouring	1 PAIR	**700-0822**
Replacement gaskets for end gates	1 PAIR	**700-0823**
UV transparent gel tray with end gates (Midi S)	1	**700-0829**

PerfectBlue gel system, Maxi S Plus

The smallest of the Maxi series, the Maxi S Plus is suitable for high quality sample separation of up to 160 samples per run. With this flexible system, the gel size can be split into two, three or four sections by using different comb positions, plus the gel size can be reduced using the wall comb or the casting dam system.

The system is supplied with three combs but others are available – either standard combs, or microtitre combs which are ideal for use with multichannel pipettes. Use of the system end gates ensure that gel pouring is leak-free and easy. The levelling table keeps the resulting gel flat, maximising the quality of the run.

*Based on an agarose gel of approximately 5 mm thickness.

Supplied with three combs (1,5 mm thickness, 10, 17, 34 teeth), lid, gel tray, three-point levelling platform, tank, cables and end gates.

Model	Maxi S Plus
Gel size W×L (mm)	150×250
Sample capacity	10 – 160
Gel volume (ml)	200*
Buffer volume (ml)	~1800
Run time (min)	≥60
Unit W×L×H (mm)	230×375×105

Description	Pk	Cat. No.
PerfectBlue gel system Maxi S Plus	1	**700-0876**

Description	Pk	Cat. No.
Combs		
Standard comb, 1,0 mm, 10 teeth, 30 µl*	1	**700-0815**
Standard comb, 1,5 mm, 10 teeth, 46 µl*	1	**700-0816**
Standard comb, 1,0 mm, 20 teeth, 13 µl*	1	**700-0817**
Standard comb, 1,5 mm, 20 teeth, 20 µl*	1	**700-0818**
Standard comb, 1,0 mm, 40 teeth, 5 µl*	1	**700-0819**
Standard comb, 1,5 mm, 40 teeth, 7 µl*	1	**700-0820**
Microtitre comb, 1,0 mm, 34 teeth, 6 µl*	1	**700-0825**
Microtitre comb, 1,5 mm, 34 teeth, 9 µl*	1	**700-0826**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 17 teeth, 16 µl*	1	**700-0827**
Microtitre comb, 1,5 mm, 17 teeth, 24 µl*	1	**700-0828**
Accessories		
Casting dam, aluminium, for shorter gel length	1	**700-0821**
End gates, for gel pouring	1 PAIR	**700-0822**
Replacement gaskets for end gates	1 PAIR	**700-0823**
UV transparent gel tray with end gates (Maxi S Plus)	1	**700-0878**

PerfectBlue gel system, Maxi M

Wider than the Maxi S Plus, the Maxi M model can accommodate up to 168 samples but still with an economical footprint.

*Based on an agarose gel of approximately 5 mm thickness.

Supplied with three combs (1,5 mm thickness, 16, 24, 36 teeth), lid, gel tray, three-point levelling platform, end gates, tank and cables.

Model	Maxi M
Gel size W×L (mm)	200×250
Sample capacity	8 – 168
Gel volume (ml)	250*
Buffer volume (ml)	~2300
Run time (min)	≥60
Unit W×L×H (mm)	290×370×100

Description	Pk	Cat. No.
PerfectBlue Gel System Maxi M	1	700-0880

Description	Pk	Cat. No.
Combs for PerfectBlue Gel System Maxi M, VWR (Galileo)		
Microtitre comb, 1,0 mm, 18 teeth, 27 µl*	1	700-0885
Microtitre comb, 1,0 mm, 21 teeth, 27 µl*	1	700-0904
Microtitre comb, 1,0 mm, 42 teeth, 11 µl*	1	700-0902
Microtitre comb, 1,5 mm, 18 teeth, 40 µl*	1	700-0886
Microtitre comb, 1,5 mm, 42 teeth, 16 µl*	1	700-0903
Standard comb, 1,0 mm, 12 teeth, 54 µl*	1	700-0881
Standard comb, 1,0 mm, 16 teeth, 54 µl*	1	700-0883
Standard comb, 1,0 mm, 20 teeth, 30 µl*	1	700-0887
Standard comb, 1,0 mm, 24 teeth, 24 µl*	1	700-0889
Standard comb, 1,0 mm, 28 teeth, 19 µl*	1	700-0891
Standard comb, 1,0 mm, 32 teeth, 15 µl*	1	700-0893
Standard comb, 1,0 mm, 36 teeth, 13 µl*	1	700-0895
Standard comb, 1,0 mm, 8 teeth, 85 µl*	1	700-0897

Description	Pk	Cat. No.
Combs for PerfectBlue Gel System Maxi M, VWR (Galileo)		
Standard comb, 1,5 mm, 12 teeth, 82 µl*	1	700-0882
Standard comb, 1,5 mm, 16 teeth, 39 µl*	1	700-0884
Standard comb, 1,5 mm, 20 teeth, 45 µl*	1	700-0888
Standard comb, 1,5 mm, 24 teeth, 37 µl*	1	700-0890
Standard comb, 1,5 mm, 28 teeth, 28 µl*	1	700-0892
Standard comb, 1,5 mm, 32 teeth, 22 µl*	1	700-0894
Standard comb, 1,5 mm, 36 teeth, 20 µl*	1	700-0896
Standard comb, 1,5 mm, 8 teeth, 127 µl*	1	700-0898
Accessories		
Casting dam, aluminium, for shorter gel length	1	700-0899
End gates, for gel pouring	1 PAIR	700-0900
Replacement gaskets for end gates	1 PAIR	700-0901
UV transparent gel tray with end gates	1	700-0907

PerfectBlue gel system, Maxi M 'Revolution'

Based on the Maxi M model, the Maxi M 'Revolution' offers a built-in buffer circulation system, powered by the system's electrodes. At the cathode, hydrogen bubbles are produced and pass up a diagonally positioned pipe connected to the two sides of the tank to produce a gentle and continual circulation of the buffer. The system nulls any pH and ionic gradient – without the fuss of mechanical pumps. The system offers six comb positions enabling the gel to be partitioned into 2, 3 or 4 areas. In addition, the system can accommodate any of the 23 standard and microtitre comb designs described for the Maxi M model.

*Based on an agarose gel of approximately 5 mm thickness.

Supplied with three combs (1,5 mm thickness, 16, 24, 36 teeth), lid, gel tray, three-point levelling platform, end gates, tank and cables.

Model	Maxi M 'Revolution'
Gel size W×L (mm)	200×250
Sample capacity	8 – 168
Gel volume (ml)	250*
Buffer volume (ml)	~2000
Run time (min)	≥60
Unit W×L×H (mm)	270×380×155

Description	Pk	Cat. No.
PerfectBlue gel system Maxi M 'Revolution'	1	700-0909

Description	Pk	Cat. No.
Combs for PerfectBlue Gel System Maxi M, VWR (Galileo)		
Microtitre comb, 1,0 mm, 18 teeth, 27 µl*	1	700-0885
Microtitre comb, 1,0 mm, 21 teeth, 27 µl*	1	700-0904
Microtitre comb, 1,0 mm, 42 teeth, 11 µl*	1	700-0902
Microtitre comb, 1,5 mm, 18 teeth, 40 µl*	1	700-0886
Microtitre comb, 1,5 mm, 42 teeth, 16 µl*	1	700-0903
Standard comb, 1,0 mm, 12 teeth, 54 µl*	1	700-0881
Standard comb, 1,0 mm, 16 teeth, 54 µl*	1	700-0883
Standard comb, 1,0 mm, 20 teeth, 30 µl*	1	700-0887
Standard comb, 1,0 mm, 24 teeth, 24 µl*	1	700-0889
Standard comb, 1,0 mm, 28 teeth, 19 µl*	1	700-0891
Standard comb, 1,0 mm, 32 teeth, 15 µl*	1	700-0893
Standard comb, 1,0 mm, 36 teeth, 13 µl*	1	700-0895
Standard comb, 1,0 mm, 8 teeth, 85 µl*	1	700-0897

Description	Pk	Cat. No.
Combs for PerfectBlue Gel System Maxi M, VWR (Galileo)		
Standard comb, 1,5 mm, 12 teeth, 82 µl*	1	700-0882
Standard comb, 1,5 mm, 16 teeth, 39 µl*	1	700-0884
Standard comb, 1,5 mm, 20 teeth, 45 µl*	1	700-0888
Standard comb, 1,5 mm, 24 teeth, 37 µl*	1	700-0890
Standard comb, 1,5 mm, 28 teeth, 28 µl*	1	700-0892
Standard comb, 1,5 mm, 32 teeth, 22 µl*	1	700-0894
Standard comb, 1,5 mm, 36 teeth, 20 µl*	1	700-0896
Standard comb, 1,5 mm, 8 teeth, 127 µl*	1	700-0898
Accessories		
Casting dam, aluminium, for shorter gel length	1	700-0899
End gates, for gel pouring	1 PAIR	700-0900
Replacement gaskets for end gates	1 PAIR	700-0901
UV transparent gel tray with end gates	1	700-0907

PerfectBlue wide format gel system, Midi ExW

With its extra wide design, the Midi ExW is ideal when there is a need to run lots of samples (up to 200) in just a short distance, for example, when genotyping. This format, along with its compact footprint, offers rapid run times without compromising on power. The result is a system for high throughput sample processing, generating crisp clear band data. As with all PerfectBlue™ gel systems, gels can be poured directly in the trays at temperatures up to 60 °C. With the Midi ExW, the trays can be walled with effective gasketed 'end gates' which are supplied in the system. In addition, gel size can be reduced by using wall combs or the aluminium casting dam.

*Based on an agarose gel of approximately 5 mm thickness

Each system is supplied with four microtitre combs (1,5 mm thick, 50 teeth), lid, gel tray, tank, cables and end gates for gel pouring.

Model	Midi ExW
Gel size W×L (mm)	230×140
Sample capacity	25 – 200
Gel volume (ml)	160*
Buffer volume (ml)	~1400
Run time (min)	≥45
Unit W×L×H (mm)	260×290×100

Description	Pk	Cat. No.
PerfectBlue wide format gel system Midi ExW	1	**700-0842**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 25 teeth, 27 µl*	1	**700-0838**
Microtitre comb, 1,5 mm, 25 teeth, 40 µl*	1	**700-0839**
Microtitre comb, 1,0 mm, 26 teeth, 27 µl*	1	**700-0831**
Microtitre comb, 1,5 mm, 26 teeth, 40 µl*	1	**700-0832**
Microtitre comb, 1,0 mm, 50 teeth, 11 µl*	1	**700-0836**
Microtitre comb, 1,5 mm, 50 teeth, 16 µl*	1	**700-0837**
Accessories		
Casting dam, aluminium, for shorter gel length	1	**700-0833**
Gel tray with end gates	1	**700-0845**

PerfectBlue wide format gel system, Maxi ExW

This 'extra wide' Maxi tank was developed especially for large sample numbers and rapid separation times. Accommodating up to 10 microtitre combs, the Maxi ExW can be used to separate up to 500 samples and facilitates error-free loading with multichannel pipettes. By optimising the position of the embedded platinum electrode and the use of the three-point levelling platform, with in-built bubble level, the Maxi ExW provides highly reproducible and dependable sample separation, free from 'smiling' effects.

The tray has 10 comb positions accomodating two different comb thicknesses. The tray is designed for use with sturdy 'end gates' for in-tray gel pouring and economical 'tray partitions' that enable smaller gels to be poured in the same tray – saving time and money.

*Based on an agarose gel of approximately 5 mm thickness

Supplied with four combs (1,5 mm thickness, 2× 25 and 2× 50 teeth), lid, gel tray, three-point levelling platform, end gates, tank and cables.

Model	Maxi ExW
Gel size W×L (mm)	230×250
Sample capacity	25 – 500
Gel volume (ml)	290*
Buffer volume (ml)	~3000
Run time (min)	≥60
Unit W×L×H (mm)	300×370×110

Description	Pk	Cat. No.
PerfectBlue gel system Maxi ExW	1	**700-0910**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 25 teeth, 27 µl*	1	**700-0838**
Microtitre comb, 1,5 mm, 25 teeth, 40 µl*	1	**700-0839**
Microtitre comb, 1,0 mm, 26 teeth, 27 µl*	1	**700-0831**
Microtitre comb, 1,5 mm, 26 teeth, 40 µl*	1	**700-0832**
Microtitre comb, 1,0 mm, 50 teeth, 11 µl*	1	**700-0836**
Microtitre comb, 1,5 mm, 50 teeth, 16 µl*	1	**700-0837**

Description	Pk	Cat. No.
Accessories		
Casting dam, aluminium, for shorter gel length	1	**700-0833**
Gel tray with end gates	1	**700-0911**
Replacement gaskets for end gates	1 PAIR	**700-0915**

PerfectBlue wide format gel system, Maxi ExW 'Revolution'

The Maxi ExW 'Revolution' offers built-in buffer recirculation – without the need for pumps or additional tubing. The Maxi ExW 'Revolution' offers the same high throughput, rapid separation as the Maxi ExW model but, with the position of the cathode and a rising tube, the system uses hydrogen bubbles to slowly mix the buffer. This system thereby avoids the build-up of pH or ionic gradients for electrophoresis of maximum quality and stability.

The Maxi ExW 'Revolution' system offers 10 microtitre comb positions with a maximum capacity for 500 samples. The optional wall combs or casting dams enable the gel size to be reduced to pour smaller gels.

*Based on an agarose gel of approximately 5 mm thickness

Supplied with four combs (1,5 mm thickness, 2×25 and 2×50 teeth), lid, gel tray, three-point levelling platform, end gates, tank and cables.

Model	Maxi ExW 'Revolution'
Gel size W×L (mm)	230×250
Sample capacity	25 – 500
Gel volume (ml)	290*
Buffer volume (ml)	~2800
Run time (min)	≥60
Unit W×L×H (mm)	300×380×155

Description	Pk	Cat. No.
PerfectBlue gel system Maxi ExW 'Revolution'	1	**700-0912**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 25 teeth, 27 µl*	1	**700-0838**
Microtitre comb, 1,5 mm, 25 teeth, 40 µl*	1	**700-0839**
Microtitre comb, 1,0 mm, 26 teeth, 27 µl*	1	**700-0831**
Microtitre comb, 1,5 mm, 26 teeth, 40 µl*	1	**700-0832**
Microtitre comb, 1,0 mm, 50 teeth, 11 µl*	1	**700-0836**
Microtitre comb, 1,5 mm, 50 teeth, 16 µl*	1	**700-0837**

Description	Pk	Cat. No.
Accessories		
Casting dam, aluminium, for shorter gel length	1	**700-0833**
Gel tray with end gates	1	**700-0845**
Gel tray with end gates	1	**700-0911**
Replacement gaskets for end gates	1 PAIR	**700-0915**

PerfectBlue gel system, Maxi L

The Maxi L system can be used to run up to 600 samples, making it perfectly suited for large scale sample screening where up to 12 microtitre combs can be used on the same 23×40 cm gel tray.

Designed for economy and efficiency, the Maxi L system offers the use of economical partition walls, used to generate smaller gels, and for loading the samples, the microtitre combs allow rapid and error-free loading with multichannel pipettes. Gels can be poured directly into the tray through the use of 'end gates' (no need for taping) and the three-point levelling tray ensures a uniform thickness of gel to reduce 'smiling' effects which are common in gels of this size.

*Based on an agarose gel of approximately 5 mm thickness

Supplied with four combs (1,5 mm thickness, 2× 25 and 2× 50 teeth), lid, gel tray, three-point levelling platform, end gate, tank and cables.

Model	Maxi L
Gel size W×L (mm)	230×400
Sample capacity	25 – 600
Gel volume (ml)	460*
Buffer volume (ml)	~4500
Run time (min)	≥60
Unit W×L×H (mm)	320×530×100

Description	Pk	Cat. No.
PerfectBlue gel system Maxi L	1	**700-0913**

Description	Pk	Cat. No.
Combs		
Microtitre comb, 1,0 mm, 25 teeth, 27 µl*	1	**700-0838**
Microtitre comb, 1,5 mm, 25 teeth, 40 µl*	1	**700-0839**
Microtitre comb, 1,0 mm, 26 teeth, 27 µl*	1	**700-0831**
Microtitre comb, 1,5 mm, 26 teeth, 40 µl*	1	**700-0832**
Microtitre comb, 1,0 mm, 50 teeth, 11 µl*	1	**700-0836**
Microtitre comb, 1,5 mm, 50 teeth, 16 µl*	1	**700-0837**

Description	Pk	Cat. No.
Accessories		
Casting dam, aluminium, for shorter gel length	1	**700-0833**
Gel tray with end gates	1	**700-0916**
Replacement gaskets for end gates	1 PAIR	**700-0915**

Horizontal electrophoresis apparatus, shiroGEL horizontal 96

The 96-well format horizontal gel electrophoresis unit is compatible with 8-channel multi channel pipettes and matches up with the standard 96-well plate configuration. The average run time is 15 to 30 minutes per gel. The layout of wells is designed to allow a run length of 18 mm per sample, providing ideal separation.

Model	shiroGEL horizontal 96 (1 mm, 1 marker)
Gel size W×L (mm)	100×120
Sample capacity	96 samples plus 1 marker lane
Buffer volume (ml)	300
Unit W×L×H (mm)	220×125×90

Description	Pk	Cat. No.
shiroGEL horizontal 96 system, including comb block (12×8-sample, assembled, comb thickness 1,0 mm, 1 marker lane)	1	**730-0340**

Description	Pk	Cat. No.
Combs for shiroGEL horizontal 96		
Comb, 8-sample (multi channel pipette compatible), 1,0 mm thick, 1 marker lane	1	**730-0344**
Accessories		
96-well gel tray, 100×120 mm	1	**730-0352**

Horizontal electrophoresis systems, shiroGEL

Designed for ease of use and safe operation, the shiroGEL horizontal electrophoresis systems and accessories are built to withstand the rigours of everyday use. For leakproof performance the gel boxes and gel trays are moulded from thick acrylic. UV transparent gel trays aid in visualisation of samples. Cassettes protect the electrodes and allow for easy replacement. Gel casting is simple with the durable rubber casting gates. Slots in the sides of the trays allow for easy comb placement. The two-piece design of the combs allows for vertical adjustment, giving the user control over the depth of the well. The combs supplied with the systems are 1,5 mm thick. Multiple combs, including those compatible with multichannel pipettes and different thicknesses, are also available. The 'EasyLift' gel box lid is easily removed using the side tabs and pressure pads. The lid is domed, to prevent condensation from dripping onto the gel, and is surrounded by a drip ring, to help recover the condensate and maintain buffer concentration.

- Moulded, durable construction
- Rubber gates for tapeless gel casting
- 'EasyLift' safety lid with buffer recapture system to maintain buffer concentration

*Multichannel pipette compatible

Complete system, including UV transparent gel tray, is supplied with tank, lid, electrodes and 1,5 mm combs.

Model	Mini 10	Midi Plus 10	Midi Plus 15
Gel size W×L (mm)	70×100	150×100	150×150
Sample capacity	64	140	210
Buffer volume (ml)	225	300	500
Unit W×L×H (mm)	90×210×90	175×265×90	

Description	Pk	Cat. No.
Horizontal gel unit, shiroGEL Mini 10, 7×10 cm	1	700-0250
Horizontal gel unit, shiroGEL Midi Plus 10, 15×10 cm	1	700-0253
Horizontal gel unit, shiroGEL Midi Plus 15, 15×15 cm	1	700-0255

Description	Pk	Cat. No.
Combs for shiroGEL horizontal gel systems		
Comb, 5-well, 1,5 mm thickness for 7 cm gel tray	1	700-0263
Comb, 8-well, 1,0 mm thickness for 7 cm gel tray	1	700-0264
Comb, 10-well, 1,5 mm thickness for 7 cm gel tray	1	700-0258
Comb, 12-well, 1,0 mm thickness for 7 cm gel tray*	1	700-0259
Comb, 12-well, 1,5 mm thickness for 7 cm gel tray*	1	700-0260
Comb, 16-well, 1,0 mm thickness for 7 cm gel tray	1	700-0261
Comb, 16-well, 1,5 mm thickness for 7 cm gel tray	1	700-0262
Comb, 8-well, 1,0 mm thickness for 15 cm gel tray	1	700-0288
Comb, 8-well, 1,5 mm thickness for 15 cm gel tray	1	700-0289
Comb, 10-well, 1,0 mm thickness for 15 cm gel tray	1	700-0265
Comb, 10-well, 1,5 mm thickness for 15 cm gel tray	1	700-0266
Comb, 12-well, 1,5 mm thickness for 15 cm gel tray	1	700-0268
Comb, 14-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0270
Comb, 14-well, 2,0 mm thickness for 15 cm gel tray*	1	700-0271
Comb, 16-well, 1,0 mm thickness for 15 cm gel tray	1	700-0272
Comb, 16-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0273
Comb, 16-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0274
Comb, 16-well, 2,0 mm thickness for 15 cm gel tray*	1	700-0275
Comb, 18-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0276
Comb, 18-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0277
Comb, 20-well, 0,75 mm thickness for 15 cm gel tray	1	700-0278
Comb, 20-well, 1,0 mm thickness for 15 cm gel tray	1	700-0279
Comb, 20-well, 1,5 mm thickness for 15 cm gel tray	1	700-0280
Comb, 20-well, 2,0 mm thickness for 15 cm gel tray	1	700-0281
Comb, 28-well, 0,75 mm thickness for 15 cm gel tray*	1	700-0282
Comb, 28-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0283
Comb, 28-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0284
Comb, 30-well, 1,0 mm thickness for 15 cm gel tray*	1	700-0285
Comb, 30-well, 1,5 mm thickness for 15 cm gel tray*	1	700-0286
Comb, 35-well, 1,5 mm thickness for 15 cm gel tray	1	700-0287
Accessories		
Casting dam for 7 cm gel tray	2	700-0252
Casting dam for 15 cm gel tray	2	700-0257
UV transparent gel tray for shiroGEL Mini 10	1	700-0251
UV transparent gel tray for shiroGEL Midi Plus 10	1	700-0254
UV transparent gel tray for shiroGEL Midi Plus 15	1	700-0256

Mini Gel II electrophoresis system

The Mini Gel II is a complete electrophoresis system, which includes all components necessary to cast and run horizontal gels - gel trays, combs, casting stand, gel tank and digital power supply.

- Migration tank and gel trays are moulded for leakproof performance and long service life, and the gel box lid is vented to dissipate heat during electrophoresis
- Power supply easily disconnects from the gel box so that the gel box can be cleaned
- Mode and arrow keys on the membrane key pad make programming easy, with all parameters shown on a large digital display
- Casting sets are designed for pouring gels without the use of tape or spacers, and casting trays feature multiple slots for holding combs in place
- Electrodes are contained in cassettes to protect from damage

Supplied with gel tank, direct connection power supply, and standard gel casting set. Standard casting set includes 12,5×13 cm gel tray, 2 each 12,5×6 cm gel trays, 4 each 14/28 tooth combs (1 mm) and a casting stand. Optional Micro casting set includes 4 each 6×6 cm UV transparent gel trays, 2 each 5/8 tooth combs (1 mm) and a casting stand.

Sample capacity	112 samples (4 combs)
Capacity	1 large gel (12,5×13 cm), 2 small gels (12,5×6 cm) or 4 micro gels (6×6 cm)
Buffer tank volume (ml)	250
Max. power (W)	45
Input voltage (V)	Universal, AC 100 - 240 V, 50/60 Hz
Output current range/increments (mA)	10 - 400
Output voltage (V)	10 - 150
Memory	Last parameters saved in memory
Safety	Microsensor (Hall effect) in power supply, no output without safety lid in place, automatic crossover, no load and load change detection
Timer	Max. 99 h, 59 min or continuous, audible alert at end of run
Tank W×D×H (mm)	183×164×560
Unit W×L×H (mm)	245×170×620

Description	Pk	Cat. No.
Mini Gel II complete electrophoresis system, EU plug	1	700-0003
Mini Gel II complete electrophoresis system, UK plug	1	700-0004
Mini Gel II complete electrophoresis system, CH plug	1	700-0005

Description	Pk	Cat. No.
Accessories		
Large UV transparent gel trays, 12,5×13 cm, set of 2	2	700-0006
Small UV transparent gel trays, 12,5×6 cm, set of 2	2	700-0007
Micro UV transparent gel trays, 6×6 cm, set of 4	4	700-0008
Micro casting set	1	700-0011
Casting stand	1	700-0012
Standard casting set	1	700-0013
Combs		
Gel comb, 5/8 teeth (1 mm), reversible, set of 2	2	700-0010
Gel comb, 14/28 teeth (1 mm), reversible, set of 2	2	700-0009

Agarose, universal, peqGOLD

High quality standard agarose for routine analysis with broad separation range (0,05 to 50 kbp). Ideal for blotting applications due to high gel strength. Free from RNases, DNases and enzyme inhibitors.

Description	Pk	Cat. No.
Universal agarose	100 g	**732-2788**
Universal agarose	500 g	**732-2789**

Agarose DNA Grade (100 bp - 23 kb), Electran for electrophoresis

DNA grade agarose is suitable for the majority of routine DNA separations. .

- Free from DNase and RNase

Description	Pack type	Pk	Cat. No.
Agarose DNA Grade (100 bp - 23 kb), Electran for electrophoresis	Plastic bottle	1 kg	**438795A**
Agarose DNA Grade (100 bp - 23 kb), Electran for electrophoresis	Plastic bottle	100 g	**438792U**

Agarose high resolution, Electran for electrophoresis

Agarose high resolution (HR) has melting, max. 90 °C, and gelling temperatures (32,5 to 38 °C) but differs from traditional low melting point molecular biology grade agaroses in the gel separation range. Using this agarose in electrophoresis allows fine and consistent resolution of nucleic acids below 1000 base pairs, which differ by only a few base pairs. The properties of Agarose HR allow consistent gel separations (analytical and preparative) and performance of in-vitro translation and transcription mapping as well as in-vivo ligation and transformation. For analytical gel separation of DNA/RNA below 1000 base pairs where a higher gel strength for ease of manipulation is required, we recommend the use of Agarose, high resolution, Electran (43655).

- DNase- and RNase-free

Description	Pack type	Pk	Cat. No.
Agarose high resolution, Electran for electrophoresis	Plastic bottle	25 g	**437122H**
Agarose high resolution, Electran for electrophoresis	Plastic bottle	125 g	**437123Y**

Agarose, wide range, low melting, Electran for electrophoresis

Agarose, low gelling temperature has low melting and gelling temperatures, low sulphate content and high optical clarity. It is suitable for use in protein and nucleic acid electrophoresis and for immobilisation of heat-labile substances (e.g. bacteria, yeast and eukaryotic cells) due to the low gelling point. In addition, the low melting point of this agarose offers the possibility of recovering proteins and nucleic acids without denaturation when re-melted.

Description	Pack type	Pk	Cat. No.
Agarose, wide range, low melting, Electran for electrophoresis	Plastic bottle	25 g	**444152G**
Agarose, wide range, low melting, Electran for electrophoresis	Plastic bottle	125 g	**444153H**

Agarose, high resolution, low melting , Electran for electrophoresis

Agarose high resolution is optimised to give the exceptional separation on agarose of nucleic acid fragments below 1000 base pairs and differing by only a few base pairs. It retains the low gelling characteristics of the standard Agarose HR and offers significantly increased gel strength at the expense of a higher melting temperature. This results in gels which are flexible and easy to handle. These properties make it the agarose of choice for analytical gel separations to check the quality and size of amplified fragments and for use in restriction mapping involving small digestion fragments.

- DNase- and RNase-free

Description	Pack type	Pk	Cat. No.
Agarose, high resolution, low melting , Electran for electrophoresis	Plastic bottle	25 g	**436552V**
Agarose, high resolution, low melting , Electran for electrophoresis	Plastic bottle	100 g	**436553W**

TBE buffer solution 10X concentrate (Tris-borate-EDTA buffer) Electran for electrophoresis

10X concentrated solution of 0,9 M Tris, 0,9 M borate and 0,02 M EDTA; pH 8,3 ±0,1 in distilled, deionised water.

RNases and DNases (exo and endonucleases) not detectable.

Description	Pk	Cat. No.
TBE solution 10X concentrate (Tris-borate-EDTA buffer) Electran for electrophoresis	5 l	**444136G**

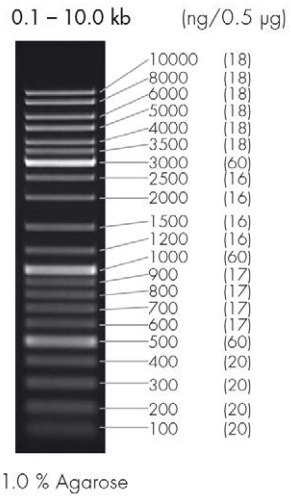
Water for molecular biology

Description	Pack type	Pk	Cat. No.
Water for molecular biology	Bag-in-box (Cubitainer)	10 l	**445847D**

DNA ladder mix, peqGOLD

DNA ladder for quantitative and qualitative analysis of dsDNA.

- Range: 21 fragments, 100 to 10 000 bp in size
- Three highlighted bands for easy orientation
- Also available as ready to use mix containing Orange G dye instead of bromophenol blue



Description	Pk	Cat. No.
DNA ladder mix (concentrated), 500 ng/µl, 5×100 µl, sufficient for 250 lanes	1	**25-2040**

DNA ladders

VWR DNA ladders are supplied in a loading buffer that is ready to use on agarose and polyacrylamide DNA gels. The ladders are suitable with TBE, TAE, SB and LB electrophoresis systems.

- Supplied in loading buffer, ready to use directly on the gel
- Mass-calibrated bands for DNA quantification
- PCR DNA ladder has a 1000 bp band that is extra bright to serve as reference point

High Range DNA ladder molecular range: 200 to 12000 bp; mass-calibrated bands from 6 to 40 ng/band for DNA quantification.
Low Range DNA ladder molecular range: 100 to 1000 bp; mass-calibrated bands from 8 to 40 ng/band for DNA quantification.
PCR DNA ladder molecular range: 100 to 3000 bp; mass-calibrated bands from 10 to 30 ng/band for DNA quantification.

Each DNA ladder is supplied in 0,5 ml packs sufficient for 250 lanes.

Description	Pk	Cat. No.
High range DNA ladder, 200 to 12000 bp, sufficient for 250 lanes (loading 2 µl per gel), 1×0,5 ml	1 KIT	**733-2577**
Low range DNA ladder, 100 to 1000 bp, sufficient for 250 lanes (loading 2 µl per gel), 1×0,5 ml	1 KIT	**733-2578**
PCR ladder, 100 to 3000 bp, sufficient for 250 lanes (loading 2 µl per gel), 1×0,5 ml	1 KIT	**733-2579**

DNA ladders

VWR DNA ladders are convenient dsDNA ladders supplied in a loading buffer, which are ready to use on agarose and SDS DNA gels.

- Ready to use loading buffer
- For direct loading and easy visualisation
- Suitable with TBE and TAE electrophoresis systems
- Clear, distinct bands
- Blue dye front running at 100 to 300 bp at 0,5 to 1,5% agarose

Supplied in 0,5 ml packs for 100 lanes.

Description	Pk	Cat. No.
Mini DNA ladder, 100 – 500 bp	100 Tests	**733-2601**
Low range DNA ladder, 100 – 1000 bp	100 Tests	**733-2602**
PCR ladder, 100 – 3000 bp	100 Tests	**733-2603**

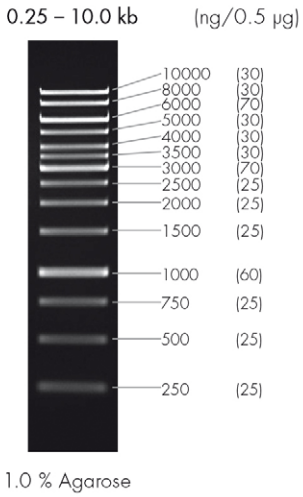
Low DNA Ladder

DNA ladder, 1 kb, peqGOLD

DNA ladder for quantitative and qualitative analysis of dsDNA.

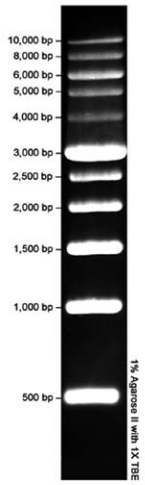
- Range: 14 fragments, 250 to 10 000 bp in size
- Three highlighted bands for easy orientation
- Also available as ready to use mix containing Orange G dye instead of bromophenol blue

Description	Pk	Cat. No.
DNA ladder, 1 kb (concentrated), 500 ng/µl, 5×100 µl, sufficient for 250 lanes	1 KIT	**25-2030**



DNA ladder, 1 kb, Ready Ladder

Ladder with 11 fragments ranging from 500 to 10000 bp for easy band identification. Ready to use formula pre-mixed with loading dye.



Description	Pk	Cat. No.
1 kb DNA ladder	1,2 ml	**N551-1.2ML**

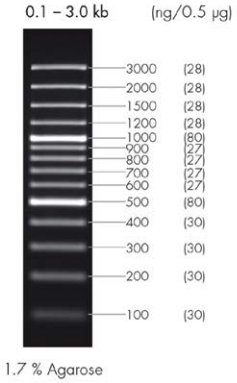
DNA ladder, 100 bp plus, peqGOLD

peqGOLD DNA ladder 100 bp plus is ideal for size determination in the range of 100 to 3000 base pairs. There are no unspecific bands besides the fragments described. The 1000 bp and 500 bp bands have a higher DNA content and serve as a size reference.

- Composed of 14 chromatography-purified individual DNA fragmentss: 3000, 2000, 1500, 1200, 1000, 900, 800, 700, 600, 500, 400, 300, 200 and 100 base pairs

Product comprises 100 µl (50 µg) DNA ladder and 1 ml 6X loading buffer (10 mM Tris-HCl, pH 7,6; 0,03% bromophenol blue; 0,03% xylene cyanol; 60% glycerol and 60 mM EDTA)

The marker has to be dephosphorylated before being used in radioactive assays.



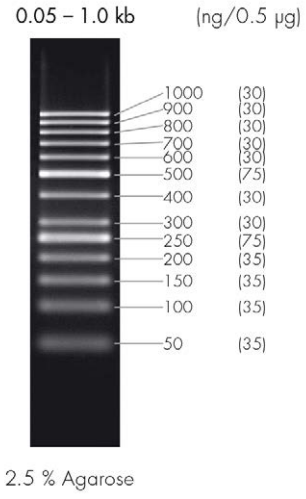
DNA ladder, 100 bp plus

Description	Pk	Cat. No.
DNA ladder, 100 bp plus (concentrated), 500 ng/µl, 1×100 µl, sufficient for 50 lanes	1	**25-2020**

DNA ladders, 50 bp, peqGOLD

DNA ladder for quantitative and qualitative analysis of dsDNA.

- Range: 13 distinct fragments 50 to 1000 bp in size
- Two highlighted bands for easy orientation
- Also available as ready to use mix containing Orange G dye instead of bromophenol blue



Description	Pk	Cat. No.
DNA ladder, 50 bp, Orange G (ready to use), 100 ng/µl, 1×500 µl, sufficient for 50 lanes	1	**732-3291**
DNA ladder, 50 bp (concentrated), 500 ng/µl, 1×100 µl, sufficient for 50 lanes	1	**25-2000**

DNA loading buffers

IVD

These DNA loading dyes are used to load DNA samples to agarose or SDS DNA gels for gel electrophoresis.

Suitable for TAE, TBE, SB and LB electrophoresis buffers.

EC Regulation No. 1907/2006 (REACH).

Each kit contains 5× 1 ml.

Store at –20 °C for in vitro use only.

Description	Colour	Concentration	Pk	Cat. No.
Loading dye	Red	5X	1 KIT	**733-2574**
Loading dye	Blue	5X	1 KIT	**733-2575**
Loading dye	Orange	5X	1 KIT	**733-2576**

Taq DNA Polymerase Master Mix

VWR® Taq DNA Polymerase Master Mix is a ready to use 1,1X or 2X reaction mix. Simply add primers, template and water to carry out primer extensions and other molecular biology applications.

VWR® Red Taq DNA Polymerase Master Mix, which also contains an inert red dye, can be directly loaded onto an agarose gel without addition of electrophoresis loading buffers.

Tests = Reactions

Description	Pk	Cat. No.
Red Taq DNA Polymerase 1,1X Master Mix, 1,5 mM $MgCl_2$	500 Tests	**733-2544**
Red Taq DNA Polymerase 1,1X Master Mix, 1,5 mM $MgCl_2$	2.500 Tests	**733-1318**
Red Taq DNA Polymerase 1,1X Master Mix, 2,0 mM $MgCl_2$	500 Tests	**733-2545**
Red Taq DNA Polymerase 1,1X Master Mix, 2,0 mM $MgCl_2$	2.500 Tests	**733-1319**
Red Taq DNA Polymerase 2X Master Mix, 1,5 mM $MgCl_2$	500 Tests	**733-2546**
Red Taq DNA Polymerase 2X Master Mix, 1,5 mM $MgCl_2$	2.500 Tests	**733-1320**
Red Taq DNA Polymerase 2X Master Mix, 1,5 mM $MgCl_2$	5.000 Tests	**733-2130**
Red Taq DNA Polymerase 2X Master Mix, 1,5 mM $MgCl_2$	10.000 Tests	**733-2131**
Red Taq DNA Polymerase 2X Master Mix, 1,5 mM $MgCl_2$	20.000 Tests	**733-2132**
Red Taq DNA Polymerase 2X Master Mix, 2,0 mM $MgCl_2$	500 Tests	**733-2547**
Red Taq DNA Polymerase 2X Master Mix, 2,0 mM $MgCl_2$	2.500 Tests	**733-1321**

Ethidium bromide 0,625 mg/l in aqueous solution, Biotechnology Grade

Ethidium bromide solution is a fluorescent stain for visualising nucleic acids in solution or in electrophoresis gels. The solution is provided at a concentration of 0,625 mg/ml. A final working concentration of 0,5 g/ml is easily obtained by adding 1 drop of solution to 50 ml of molten agarose, running buffer or staining buffer. Ethidium Bromide solution in dropper bottles may be stored at room temperature for up to 1 year.

- Used to detect as little as 10 ng of nucleic acid
- Dropper bottles are shatter-resistant and light-proof
- No additional hazardous shipping costs are applied to ethidium bromide dropper bottles

At a concentration of 0,5 µg/ml, ethidium bromide is useful in agarose or acrylamide gels for band detection.

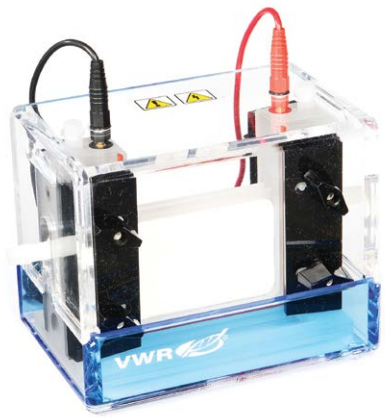
At higher concentrations (0,5 - 1,0 µg/ml), it may be used to facilitate purification of DNA in a caesium chloride gradient.

One drop diluted into 50 ml of molten agarose or buffer yields a final concentration of 0,5 µg/ml.

In 0,625 mg/ml dropper bottles.

Description	Pack type	Pk	Cat. No.
Ethidium bromide 0,625 mg/l in aqueous solution, Biotechnology Grade	Dropper bottle	5 ml	**E406-5ML**
Ethidium bromide 0,625 mg/l in aqueous solution, Biotechnology Grade	Dropper bottle	15 ml	**E406-15ML**

PerfectBlue dual gel system, Twin S



The PerfectBlue Twin S system is designed for rapid separation of typical 10×10 cm mini gels. Due to its small size and a separation capacity of 6 to 30 samples it is particularly suitable for fast, analytical separations. A highly efficient cooling system ensures uncompromising results.

*Based on an average gel and a tooth with 14 mm depth.

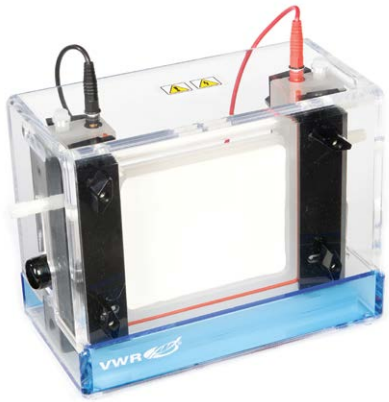
Complete system, with or without casting base, includes internal cooling core, SuperSafe cover with attached leads, 4× glass plate pair sets, 2× combs (0,8 mm thick, 10 teeth), 2× spacer sets (0,8 mm), 2× replacement gaskets, 1× blocking plate (for single gel runs) and 1× SpacerPlate.

Model	Twin S
Buffer volume, gel tank (ml)	~250
Gel size W×H (mm)	100×100
Sample capacity	6 – 24
Unit W×H×D (mm)	170×130×140

Description	Pk	Cat. No.
PerfectBlue dual gel system Twin S for gels 10×10 cm, without casting base	1	700-0937
PerfectBlue dual gel system Twin S for gels 10×10 cm, with casting base	1	700-0931

Description	Pk	Cat. No.
Combs		
Standard comb, 0,8 mm, 6 teeth, 120 µl*	1	700-0926
Standard comb, 1,5 mm, 6 teeth, 230 µl*	1	700-0927
Standard comb, 0,8 mm, 8 teeth, 85 µl*	1	700-0928
Standard comb, 1,5 mm, 8 teeth, 160 µl*	1	700-0929
Standard comb, 0,8 mm, 10 teeth, 60 µl*	1	700-0917
Standard comb, 1,5 mm, 10 teeth, 120 µl*	1	700-0918
Standard comb, 0,8 mm, 12 teeth, 45 µl*	1	700-0922
Standard comb, 1,5 mm, 12 teeth, 90 µl*	1	700-0923
Standard comb, 0,8 mm, 15 teeth, 35 µl*	1	700-0924
Standard comb, 1,5 mm, 15 teeth, 70 µl*	1	700-0925
Preparative comb, 0,8 mm, 2 teeth, 800/60 µl*	1	700-0938
Preparative comb, 1,5 mm, 2 teeth, 1500/100 µl*	1	700-0939
Accessories		
Spacer set (2 side and 1 bottom spacers), 0,8 mm	1 SET	700-0940
Spacer set (2 side and 1 bottom spacers), 1,5 mm	1 SET	700-0941
Glass plate, plain, clear, 100×100×2,4 mm	1	700-0919
Glass plate, notched, ceramic, 100×100×1 mm	1	700-0920
Glass plate, notched, clear, 100×100×2,4 mm	1	700-0921
Spare silicone rubber seals for base unit S	1 PAIR	700-0933
Cast-It S (for Twin S), casting system for up to 2 vertical gels 10×10 cm	1	700-0935
Gel casting base for Twin S	1	700-0932

PerfectBlue dual gel system, Twin M



For 16×14 cm gels, the Twin M is a versatile system for SDS PAGE applications, in addition to non denaturing electrophoresis of proteins, SSCPs and dinucleotide repeats. With the enlarged upper buffer chamber, water circulation system and heat-sinking aluminium ceramic plates, the Twin M provides high speed separation while maintaining straight and sharp bands.

*Based on an average gel and a tooth at 20 mm depth

Complete system, with or without casting base, includes internal cooling core, SuperSafe cover with attached leads, 4× glass plate pair sets, 4× combs (1,5 mm thick, 2×10 teeth and 2×15 teeth), 4× spacer sets (1,5 mm), 2× replacement gaskets, 1× blocking plate (for single gel runs) and 1× SpacerPlate.

Model	Twin M
Buffer volume, gel tank (ml)	~650
Gel size W×H (mm)	160×140
Sample capacity	10 – 48
Unit W×H×D (mm)	250×140×200

Description	Pk	Cat. No.
PerfectBlue dual gel system Twin M for gels 16×14 cm, without casting base	1	700-0961
PerfectBlue dual gel system Twin M for gels 16×14 cm, with casting base	1	700-0955

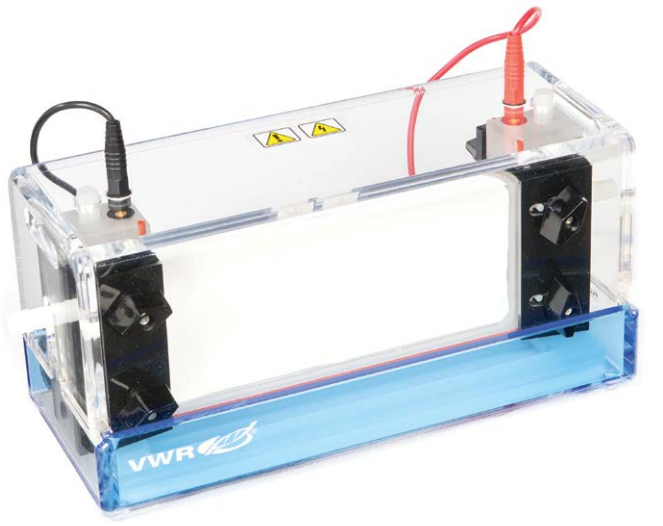
Description	Pk	Cat. No.
Combs for PerfectBlue Twin M Vertical Gel Systems, VWR (Galileo)		
Preparative comb, 0,8 mm, 2 teeth, 2095/80 µl*	1	700-0962
Preparative comb, 1,5 mm, 2 teeth, 3900/155 µl*	1	700-0963
Standard comb, 0,8 mm, 10 teeth, 165 µl*	1	700-0945
Standard comb, 0,8 mm, 15 teeth, 95 µl*	1	700-0949
Standard comb, 0,8 mm, 20 teeth, 60 µl*	1	700-0951
Standard comb, 0,8 mm, 24 teeth, 45 µl*	1	700-0953
Standard comb, 1,5 mm, 10 teeth, 310 µl*	1	700-0946
Standard comb, 1,5 mm, 15 teeth, 180 µl*	1	700-0950
Standard comb, 1,5 mm, 20 teeth, 115 µl*	1	700-0952
Standard comb, 1,5 mm, 24 teeth, 85 µl*	1	700-0954
Accessories		
Spacer set (2 side and 1 bottom spacers), 0,8 mm	1 SET	700-0964
Spacer set (2 side and 1 bottom spacers), 1,5 mm	1 SET	700-0965
Glass plate, plain, clear, 160×140×3,2 mm	1	700-0947
Glass plate, notched, clear, 160×140×3,2 mm	1	700-0948
Casting base complete with gaskets and levers	1	700-0956
Cast-It M (for Twin M), casting system for up to 2 vertical gels 16×14 cm	1	700-0959
Spare silicone rubber seals for base unit M	1 PAIR	700-0957

PerfectBlue dual gel system, Twin ExW S

Extra wide, for gels 20×10 cm, Twin ExW S is ideally suited for rapid analytical separations or large sample separation. The combination of the triple cathode construction and effective cooling provides a stable environment for high quality sample separation.

*Based on an average gel and a tooth with 14 mm depth.

Complete system, with or without casting base, includes internal cooling core, SuperSafe cover with attached leads, 4× glass plate pair sets, 4× combs (0,8 mm thick, 2×15 teeth and 2×20 teeth), 4× spacer sets (0,8 mm), 2× replacement gaskets, 1× blocking plate (for single gel runs) and 1× SpacerPlate.



Model	Twin ExW S
Buffer volume, gel tank (ml)	~650
Gel size W×H (mm)	200×100
Sample capacity	10 – 72
Unit W×H×D (mm)	300×130×140

Description	Pk	Cat. No.
PerfectBlue dual gel system Twin ExW S for gels 20×10 cm, without casting base	1	700-0986
PerfectBlue dual gel system Twin ExW S for gels 20×10 cm, with casting base	1	700-0980

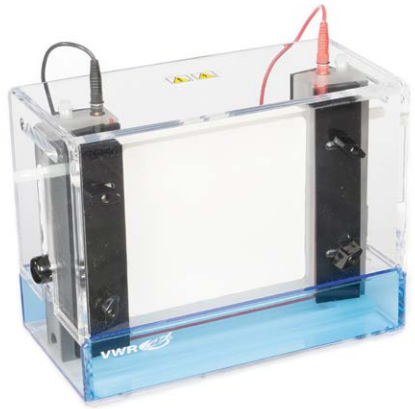
Description	Pk	Cat. No.
Combs for PerfectBlue Twin ExW S Vertical Gel Systems, VWR (Galileo)		
Standard comb, 0,8 mm, 10 teeth, 150 µl*	1	700-0968
Standard comb, 1,5 mm, 10 teeth, 285 µl*	1	700-0969
Standard comb, 0,8 mm, 15 teeth, 90 µl*	1	700-0973
Standard comb, 1,5 mm, 15 teeth, 170 µl*	1	700-0974
Standard comb, 0,8 mm, 20 teeth, 60 µl*	1	700-0975
Standard comb, 1,5 mm, 20 teeth, 115 µl*	1	700-0976
Standard comb, 0,8 mm, 25 teeth, 40 µl*	1	700-0977
Standard comb, 1,5 mm, 25 teeth, 80 µl*	1	700-0978
Microtitre comb, 0,8 mm, 18 teeth, 70 µl*	1	700-0990
Microtitre comb, 1,5 mm, 18 teeth, 135 µl*	1	700-0991
Microtitre comb, 0,8 mm, 36 teeth, 30 µl*	1	700-0988
Microtitre comb, 1,5 mm, 36 teeth, 55 µl*	1	700-0989
Preparative comb, 0,8 mm, 2 teeth, 1905/60 µl*	1	700-0992
Preparative comb, 1,5 mm, 2 teeth, 3575/110 µl*	1	700-0993
Accessories		
Spacer set (2 side and 1 bottom spacers), 0,8 mm	1 SET	700-0994
Spacer set (2 side and 1 bottom spacers), 1,5 mm	1 SET	700-0995
Glass plate, plain, clear, 200×100×3 mm	1	700-0970
Glass plate, notched, clear, 200×100×3 mm	1	700-0971
Casting base complete with gaskets and levers	1	700-0981
Replacement silicone rubber seals for base unit ExW S	1 PAIR	700-0982
Cast-It ExW S (for Twin ExW S), casting system for up to 2 vertical gels 20×10 cm	1	700-0984

PerfectBlue dual gel system, Twin L

The largest of the series, the Twin L can accommodate 20×20 cm gels for the simultaneous separation of up to 50 samples making this system ideally suited for either higher throughput or separating lower molecular weight samples. The system actively manages temperature build up with an efficient water cooling system and central aluminium ceramic plates for effective and safe long-term operation.

*Based on an average gel and a tooth at 20 mm depth

Complete system, with or without casting base, includes internal cooling core, SuperSafe cover with attached leads, 4× glass plate pair sets, 4× combs (1,5 mm thick, 2×15 teeth and 2×20 teeth), 4× spacer sets (1,5 mm), 2× replacement gaskets, 1× blocking plate (for single gel runs) and 1× SpacerPlate.

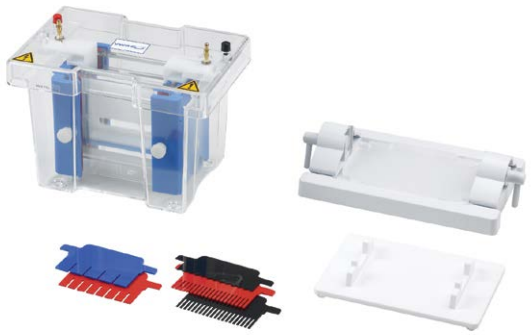


Model	Twin L
Buffer volume, gel tank (ml)	~1250
Gel size W×H (mm)	200×200
Sample capacity	10 – 50
Unit W×H×D (mm)	300×170×240

Description	Pk	Cat. No.
PerfectBlue dual gel system Twin L for gels 20×20 cm, without casting base	1	700-1205
PerfectBlue dual gel system Twin L for gels 20×20 cm, with casting base	1	700-1080

Description	Pk	Cat. No.
Combs for PerfectBlue Twin L Vertical Gel Systems, VWR (Galileo)		
Standard comb, 0,8 mm, 10 teeth, 215 µl*	1	700-0998
Standard comb, 1,5 mm, 10 teeth, 405 µl*	1	700-0999
Standard comb, 0,8 mm, 15 teeth, 130 µl*	1	700-1013
Standard comb, 1,5 mm, 15 teeth, 245 µl*	1	700-1014
Standard comb, 0,8 mm, 20 teeth, 85 µl*	1	700-1015
Standard comb, 1,5 mm, 20 teeth, 165 µl*	1	700-1017
Standard comb, 0,8 mm, 25 teeth, 60 µl*	1	700-1043
Standard comb, 1,5 mm, 25 teeth, 115 µl*	1	700-1046
Preparative comb, 0,8 mm, 2 teeth, 2620/80 µl*	1	700-1209
Preparative comb, 1,5 mm, 2 teeth, 4915/155 µl*	1	700-1210
Accessories		
Spacer set (2 side and 1 bottom spacers), 0,8 mm	1 SET	700-1211
Spacer set (2 side and 1 bottom spacers), 1,5 mm	1 SET	700-1214
Glass plate, plain, clear, 200×200×3,2 mm	1	700-1020
Glass plate, notched, clear, 200×200×3,2 mm	1	700-1034
Casting base complete with gaskets and levers	1	700-1087
Replacement silicone rubber seals for base unit L	1 PAIR	700-1089
Cast-It L (for Twin L), casting system for up to 2 vertical gels 20×20 cm	1	700-1093

Modular mini vertical PAGE systems, shiroGEL



The shiroGEL mini vertical PAGE system is modular, allowing PAGE and electroblotting to be carried out in the same tank, simply by changing the inserts. The system features inserts for each application and a common buffer tank in which to run them. Each insert has its own electrode assembly, which connects to the lid of the buffer tank. For safety, the power leads connect directly to the lid. When the lid is removed, power is disconnected from the system. The inserts also have a small pad that fits into position in the lid. This ensures that the lid is always properly placed and aids in its removal. The buffer tank is moulded to prevent separation and leaking. A variety of spacers, combs and other accessories are available to customise the system. All spacers and combs are colour coded or clearly labelled to indicate thickness.

- Runs up to four gels simultaneously
- Gels can be cast and run using the PAGE module
- Sturdy, moulded buffer chamber with lid that fits only one way

*Multichannel pipette compatible; **buffer tank

Complete system includes buffer tank; PAGE module; casting base; two 10×10 cm notched glass plates; two 10×10 cm glass plates with bonded spacers; and two 12-tooth, 1 mm thick combs.

Buffer volume, gel tank (ml)	250
Gel size W×H (mm)	100×100
Sample capacity	20 samples per gel, 2 gels per run
Unit W×H×D (mm)	190×130×150**

Description	Pk	Cat. No.
Mini PAGE complete system, shiroGEL	1	700-0292

Description	Pk	Cat. No.
Combs for mini vertical PAGE system, shiroGEL		
Comb, 5-well, 0,75 mm thickness	1	700-0311
Comb, 5-well, 1,0 mm thickness	1	700-0312
Comb, 5-well, 1,5 mm thickness	1	700-0313
Comb, 8-well, 1,0 mm thickness*	1	700-0314
Comb, 10-well, 0,75 mm thickness	1	700-0298
Comb, 10-well, 1,0 mm thickness	1	700-0299
Comb, 10-well, 1,5 mm thickness	1	700-0300
Comb, 12-well, 0,75 mm thickness	1	700-0301
Comb, 12-well, 1,0 mm thickness	1	700-0302
Comb, 12-well, 1,5 mm thickness	1	700-0303
Comb, 12-well, 2,0 mm thickness	1	700-0304
Comb, 16-well, 1,0 mm thickness*	1	700-0305
Comb, 20-well, 0,75 mm thickness	1	700-0307
Comb, 20-well, 1,0 mm thickness	1	700-0308
Comb, 20-well, 1,5 mm thickness	1	700-0309
Accessories		
Casting stand for PAGE insert	1	700-0294
PAGE insert only (no accessories)	1	700-0295
Spacers, 0,75 mm thick, pack of 2	2	700-0296
Spacers, 1,0 mm thick, pack of 2	2	700-0306
Spacers, 1,5 mm thick, pack of 2	2	700-0297
Spacers, 2,0 mm thick, pack of 2	2	700-0310
Dummy plate, 10×10 cm	1	700-0318
Notched glass plates with 0,75 mm spacers, pack of 2	1	700-0319
Notched glass plates with 1,0 mm spacers, pack of 2	1 PAIR	700-0321
Notched glass plates with 1,5 mm spacers, pack of 2	1	700-0320
Notched glass plates, 2 mm thick, pack of 2	2	700-0322
Notched glass plates with 2 mm spacers, pack of 2	1	700-0323
Plain glass plates with 0,75 mm spacers, pack of 2	1	700-0324
Plain glass plates with 1,0 mm spacers, pack of 2	2	700-0326
Plain glass plates with 1,5 mm spacers, pack of 2	1	700-0325
Plain glass plates, 2 mm thick, pack of 2	2	700-0327
Plain glass plates with 2 mm spacers, pack of 2	2	700-0328

Acrylamide (monomer) ≥99.9%, Electran for electrophoresis

Description	Pack type	Pk	Cat. No.
Acrylamide (monomer) ≥99.9%, Electran for electrophoresis	Plastic bottle	1 kg	**442994J**

Acrylogel 3 solution 40%, Electran for electrophoresis

A convenient, ready to use 40% w/v (40%T) solution of acrylamide Electran and NN'-methylenebisacrylamide Electran 3% (C±0,2%) in deionised water. Final ratio 29,1:0,9.

Description	Pack type	Pk	Cat. No.
Acrylogel 3 solution 40%, Electran for electrophoresis	Glass bottle SAFEBREAK	250 ml	**443733R**

Acrylogel 2.6 solution 30%, Electran for electrophoresis

A convenient, ready to use 30% w/v (30%T) solution of acrylamide `Electran` and NN'-methylenebisacrylamide `Electran` (2.6% C) in deionised water.
(Final ratio is 37.5:1)

Description	Pack type	Pk	Cat. No.
Acrylogel 2.6 solution 30%, Electran for electrophoresis	Glass bottle	1 l	**427205E**

Acrylamide (monomer) 40% in aqueous solution, Electran for electrophoresis

Ready to use solution for customised polyacrylamide gel electrophoresis of proteins and PAGE of nucleic acids.

Description	Pack type	Pk	Cat. No.
Acrylamide (monomer) 40% in aqueous solution, Electran for electrophoresis	Glass bottle SAFEBREAK	1 l	**443545P**

Acrylogel 2.6 solution 40%, Electran for electrophoresis

A convenient, ready to use 40% w/v (40%T) solution of acrylamide Electran and NN'-methylenebisacrylamide Electran 2,6% (C±0,2%) in deionised water (final ratio 37:1).

Description	Pack type	Pk	Cat. No.
Acrylogel 2.6 solution 40%, Electran for electrophoresis	Glass bottle SAFEBREAK	1 l	**443745V**

Protein Marker I (unstained), peqGOLD

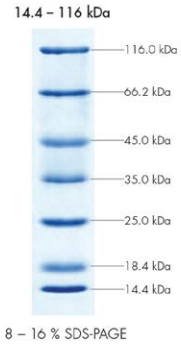
peqGOLD Protein Marker I is a mixture of seven purified proteins which are re-dissolved 'ready to use' in loading buffer. The proteins resolve into sharp, tight bands in the range of 14,4 to 116,0 kDa when analysed by SDS-PAGE and stained with Coomassie Brilliant Blue R-250.

Mini gel application: 5 to 10 µl/well
Standard gel application: 10 to 20 µl/well

peqGOLD Protein Marker I is optimised for runs on 12% SDS polyacrylamide gels. 8 to 10% gels may cause proteins with low molecular weights to migrate with the dye front. On 12 to 15% and gradient gels all bands are visible.

The marker is optimised for use with Coomassie Brlliant Blue R-250, but can also be used with other gel staining methods (e.g. silver staining). As this method is 10 to 100 times more sensitive than Coomassie Blue staining, the amount of marker applied should be decreased accordingly.

peqGOLD Protein Marker I contains 2% SDS and is, therefore, not recommended to be used in native polyacrylamide gels for determining native molecular weights of proteins.



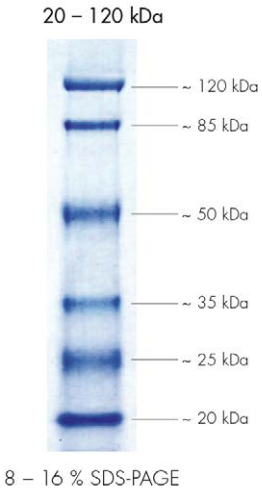
Protein marker I

Description	Pk	Cat. No.
Protein Marker I (unstained, ready to use), 2×1000 µl, sufficient for 400 mini gels or 200 standard gels	1 KIT	**27-1010**

Protein Marker III (pre-stained), peqGOLD

Protein Marker III for monitoring protein separation, transfer efficiency and for size determination.

- Mix of 6 highly purified proteins
- Range: 20 to 120 kDa
- Concentration: 200 ng/µl each protein
- Each protein covalently pre-stained with a blue colouring
- Ready to use for a fast, convenient workflow

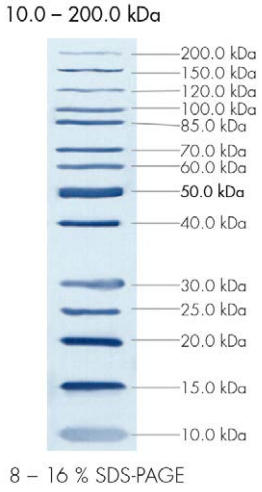


Description	Pk	Cat. No.
Protein Marker III (pre-stained, ready to use), 2×250 µl, sufficient for 50 lanes	1 KIT	**27-1110**

Protein Marker II (unstained), peqGOLD

Protein Marker II for accurate molecular weight determination of proteins by SDS-PAGE.

- Mix of 14 recombinant proteins
- Range: 10 to 200 kDa
- Each protein with Strep-Tag® II sequence (WSHPQFEK)
- Highlighted 50 kDa band for easy orientation
- Ready to use for a fast, convenient workflow



Description	Pk	Cat. No.
Protein Marker II (unstained, ready to use), 2×250 µl, sufficient for 50 lanes	1 KIT	**27-2010**

Protein Marker IV (pre-stained), peqGOLD

peqGOLD pre-stained protein marker IV is a mixture of 10 recombinant, highly purified coloured proteins supplied 'ready to use' in loading buffer. The protein concentrations are optimised to yield well-defined bands directly visible in SDS-polyacrylamide gels.

- Comprises 10 fragments: ~180, ~130, ~95, ~72, ~55, ~43, ~34, ~26, ~15 und ~10 kDa

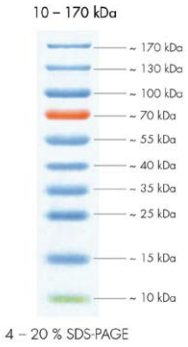
Eight of the 10 proteins ranging in apparent molecular weight from approximately 10 to 170 kDa are coupled with a blue chromophore and resolve into clearly defined, sharp bands when analysed by SDS-PAGE. A 72 kDa protein is coupled with an orange dye and serves as a reference band. The 10 kDa band is green for easier orientation.

The protein marker can be used for approximate size estimation of unknown proteins, however, for precise determination of molecular weights the use of 'unstained' protein markers is recommended. The pre-stained marker is ideal for monitoring the progression of the gel run and Western transfer efficiency.

peqGOLD Protein Marker IV is optimised for runs on 4 to 20% SDS polyacrylamide gels. 8 to 10% gels may cause proteins with low molecular weights to migrate with the dye front.

Covalently-coupled chromophores affect protein mobility. peqGOLD pre-stained protein marker should be used only for approximate molecular weight determination.

peqGOLD Protein Marker IV contains 2% SDS and is, therefore, not recommended to be used in native polyacrylamide gels for determining native molecular weights of proteins.



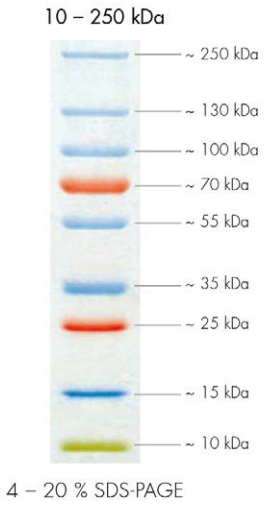
Protein marker IV

Description	Pk	Cat. No.
Protein Marker IV (pre-stained, ready to use), 2×250 µl, sufficient for 100 mini gels or 50 standard gels	1 KIT	**27-2110**

Protein marker V (pre-stained), peqGOLD

Protein Marker V (pre-stained) for monitoring protein separation, transfer efficiency, and for size determination.

- Mix of 9 recombinant proteins
- Covalently pre-stained by using one of three different dyes
- Range: 10 to 250 kDa
- Concentration: 100 to 200 ng/µl each protein
- Ready to use for a fast, convenient workflow



Description	Pk	Cat. No.
Protein Marker V (pre-stained, ready to use), 2×250 µl, sufficient for 50 lanes	1 KIT	**27-2210**

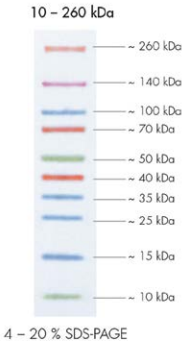
Protein Marker VI (pre-stained), peqGOLD

peqGOLD pre-stained Protein Marker VI is a mixture of 10 coloured proteins. These proteins are recombinantly produced in E.coli, highly purified and supplied 'ready to use' in loading buffer. The protein concentrations are optimised to yield well-defined bands directly visible in SDS polyacrylamide gels.

- Comprises 10 fragments: ~260, ~140, ~95, ~72, ~52, ~44, ~34, ~26, ~17 and ~10 kDa

Four of the 10 proteins with an apparent molecular weight of approximately 100, 35, 25 and 15 kDa are coupled with a blue chromophore whereas three proteins at 260, 70 and 40 kDa appear orange. Additionally two proteins at 50 and 10 kDa are labelled green and one 140 kDa protein is coupled with a pink dye. All proteins resolve into clearly defined, sharp bands when analysed by SDS-PAGE.

The protein marker can be used for approximate size estimation of unknown proteins, however, for precise determination of molecular weights the use of 'unstained' protein markers is recommended. The pre-stained marker is ideal for monitoring the progression of the gel run and the Western transfer efficiency.



Protein marker VI

Description	Pk	Cat. No.
Protein Marker VI (pre-stained, ready to use), 2×250 µl, sufficient 100 mini gels or 50 standard gels	1 KIT	**27-2310**

MES (β-(N-Morpholino)ethanesulphonic acid) ≥99.5%

MES is used as a buffering agent in biology and biochemistry. MES was developed as one of Good's buffers with the following criteria in mind: mid-range pKa, maximum water solubility and minimum solubility in all other solvents, minimal salt effects, minimal change in pKa with temperature, chemically and enzymatically stable.

Description	Pack type	Pk	Cat. No.
MES (β-(N-Morpholino)ethanesulphonic acid) ≥99.5%	Plastic bottle	100 g	**441316T**

Coomassie brilliant blue G-250

Coomassie brilliant blue G-250 is a protein stain used in electrophoresis. Brilliant blue G has been used in the Bradford dye-binding protein assay.

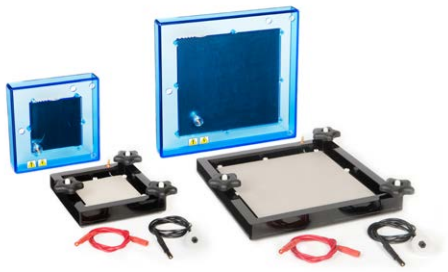
Description	Pack type	Pk	Cat. No.
Coomassie brilliant blue G-250	Glass bottle	25 g	**443293X**

Coomassie brilliant blue R-250

Coomassie brilliant blue R-250 is used for post-electrophoresis staining of proteins in applications requiring a high degree of sensitivity and/or solubility.

Description	Pack type	Pk	Cat. No.
Coomassie brilliant blue R-250	Glass bottle	25 g	**443283M**

Semi-dry electroblotters, PerfectBlue



PerfectBlue semi-dry electroblotters are designed for clean, rapid and effective transfer of proteins and nucleic acids from polyacrylamide or agarose gels to membranes. Suitable for use with Western, Southern and Northern blotting the semi-dry blotters reduce many lengthy procedures down to around an hour.

Blotting chamber

Highly durable Plexiglass® construction
Totally removable cover which attaches flat to reduce overall unit storage size
Oversized, easy to handle screws for fumble-free and safe cover adjustment
High quality gold plated plug contacts for optimal electrical contact.

Electrodes

Solid electrode plates for an even transfer over the entire gel surface
High grade stainless steel cathode and platinum coated titanium anode for maximum transfer efficiencies
Sturdy cover for enhanced user safety
Design of lid prevents accidental wrong orientation of electrical field.

Model	PerfectBlue S (10×10 cm)	PerfectBlue M (20×20 cm)
Active transfer area (cm^3)	100	400
Buffer volume (ml)	~50	~200
Transfer time	30 - 120 min	
Unit W×D×H (mm)	185×185×60	295×295×60

Description	Pk	Cat. No.
Semi-dry electroblotter PerfectBlue S	1	**700-1219**
Semi-dry electroblotter PerfectBlue M	1	**700-1220**

Semi-dry blotter, kuroGEL

The kuroGEL semi-dry blotter provides great flexibility in a laboratory since it can be used for all types of blotting: Western, Southern, and Northern. Blotting is fast and easy, and can typically be completed in 15 to 30 minutes. Set-up procedures are easy and economical with little buffer needed. The screw down lid adjusts to varying gel thicknesses and sizes, while the platinum coated electrodes provide uniform pressure ensuring even transfers.

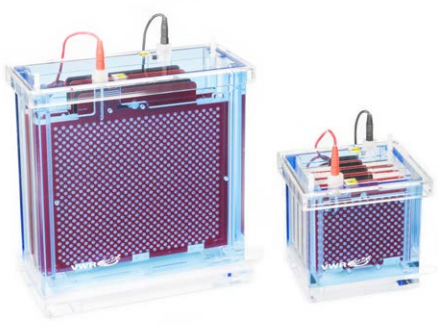
- Suitable for Western, Southern and Northern blots
- Rapid transfer times
- Uniform heat dispersion
- Variable gel thickness
- Minimal buffer volume

Each unit includes base with plate electrode, lid with plate electrode, electrical leads, and 2× unit screws.

Model	kuroGEL semi-dry blotter
Buffer volume (ml)	20
Capacity	4 blots: 80×85 mm 2 blots: 160×85 mm 1 blot: 150×175 mm
Unit W×D×H (mm)	325×250×55

Description	Pk	Cat. No.
Semi-dry blotter, kuroGEL	1	**700-0416**

Tank blotters, PerfectBlue



The PerfectBlue S and M tank electroblotters are designed to rapidly transfer nucleic acid or protein fragments from up to four polyacrylamide gels at a time to nitrocellulose, nylon or PVDF membranes. The colour coded cassettes allow for easy assembly of transfer sandwich and error-free transfer. The large buffer capacity and integral cooling permit extended transfer times and high voltage/high current operation for the transfer of high molecular weight proteins.

- Sturdy buffer chamber for up to four colour coded blotting cartridges, with sufficient volume for magnetic stirrer to ensure uniform temperature and pH conditions
- Highly durable, high grade steel and platinum coated titanium electrodes give uniform electrical field over the entire transfer surface; gold plated plugs and corrosion proof electrodes for long durability and reliable electrical contact
- Water circulation system for buffer cooling at the base of the tank with effective heat exchanger made of ceramic aluminium and increased exchange surface area to aid heat transfer
- Safety cover includes securely attached cables to enhance user safety

Model	PerfectBlue S	PerfectBlue M
Active transfer area (cm^3)	80,75	360
Buffer volume (ml)	~1300	~4500
Transfer time	120 - 360 min	
Unit W×D×H (mm)	185×145×155	290×140×350

Description	Pk	Cat. No.
Electroblotter PerfectBlue S, for gels up to 85×95 mm	1	**700-1228**
Electroblotter PerfectBlue M, for gels up to 180×200 mm	1	**700-1230**

Mini PAGE electroblotting system, shiroGEL

The shiroGEL Mini PAGE electroblotting system permits quick and easy blotting of three gels simultaneously. Gels fit snugly in blotting cassettes with transfer membranes, which are then placed into the blotting insert. Coiled electrodes within the insert generate a high intensity current, allowing standard transfer to take place in approximately one hour.

- Blots up to three gels simultaneously
- Standard transfer in approximately 1 hour

Complete system includes buffer tank with power leads and cooling pack; blotting insert; 3 blotting cassettes; 6 fibre pads; two 10×10 cm notched plates; two 10×10 cm plates with spacers; and two 12-tooth, 1 mm thick combs.

Buffer tank volume (ml)	1200
Capacity	3 gels/transfer

Description	Pk	Cat. No.
Mini PAGE electroblotting system, shiroGEL, without PAGE components	1	**700-0291**
Mini PAGE electroblotting system, shiroGEL, complete	1	**700-0293**

Description	Pk	Cat. No.
Accessories		
Blotting insert, including 3 cassettes	1	**700-0290**
Mini blotting cassette	1	**700-0316**
Fibre pads for blotting cassette	8	**700-0315**
Mini cooling pack	1	**700-0317**

Bovine Serum Albumin (BSA)

A protease-free grade albumin for RIA and ELISA applications, produced by a heat-shock process in caprylic acid.

- Protease-free
- IgG-free
- Moisture: 5%

CAS No.	9048-46-8
Colour	Light yellow
pH	6,8 - 7,2
Protein synonyms	BSA, Fraction V, Cohn Fraction V, Bovine Serum Albumin
Protein/peptide name	Albumin
Purity	98%
Source	Serum
Species	Bovine
Storage conditions	Refrigerator

Pack type	Pk	Cat. No.
Glass bottle	100 g	**422361V**

Transfer membranes, BioTrace™ NT

Pure unsupported nitrocellulose membrane ideally suited for colony and plaque lifts and protein transfers.

- Strong and durable, less likely to tear or crack
- High binding capacity for proteins and nucleic acids
- Low protein burn-through in electrophoretic transfers

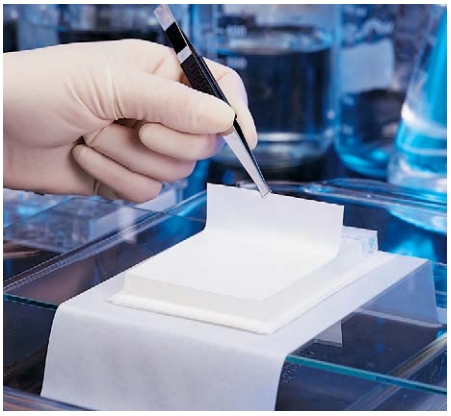
Pore size: 0,2 µm

Typical thickness: 145 µm

Protein binding capacity: 209 µg/cm^2

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	70×85	10	**516-9022**
Sheets	200×200	10	**732-3035**
Roll	300×3000	1 Roll	**732-3031**

Transfer membranes, FluoroTrans® PVDF



Naturally hydrophobic PVDF, ideal for a wide variety of protein-analysis applications. The family of FluroTrans® media are white, microporous solid phase supports that bind proteins tenaciously via hydrophobic interactions. FluoroTrans® membrane is optimised for N-terminal protein sequencing. FluoroTrans® W membrane is optimised for Western transfer applications. FluoroTrans® W membrane allows for sensitive protein detection with low background and very low protein burn-through. Immobilised proteins can be visually detected with Coomassie® Blue, Amido Black, Ponceau S, and colloidal gold.

- High protein binding capacity - typically absorbs 50% more protein than nylon or nitrocellulose
- High tensile strength, so won't tear, crack or curl during handling, allowing easy removal of target bands for protein sequencing applications
- High sensitivity for small peptides

Pore size: 0,2 µm

Typical thickness: 127 µm

Description	Dimensions (mm)	Pk	Cat. No.
FluoroTrans® membrane			
Sheets	70×84	10	**516-0219**
Sheets	85×90	20	**516-0220**
Sheets	130×140	10	**516-0222**
Rolls	260×3000	1 Roll	**516-9757**
Rolls	300×3300	1 Roll	**516-0224**

Description	Dimensions (mm)	Pk	Cat. No.
FluoroTrans® W membrane			
Sheets	100×150	10	**516-0225**
Sheets	70×90	10	**516-0248**
Sheets	200×200	10	**516-0226**

Blotting pads, grade 707

This super thick paper is used to complete the blotting sandwich. Smooth, uniform texture ensures continuous contact of buffer from the chamber through the gel and transfer membrane.

- Made of 100% cotton fibre
- Produced using ultra-pure water
- Contains no additives
- Cleaner and more consistent than paper towels

Grade	707
Weight	703 g/m²
Thickness	2,60 mm
Herzberg flow rate	120 s per 100 ml at 10 cm head of water
Klemm wicking rate test	96 s per 7,5 cm rise

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	50×75	50	**732-0608**
Sheets	70×80	50	**732-0604**
Sheets	70×100	50	**732-0594**
Sheets	100×140	50	**732-0598**
Sheets	110×130	50	**732-0601**
Sheets	110×140	50	**732-0595**
Sheets	110×180	50	**732-0600**
Sheets	130×200	50	**732-0602**
Sheets	140×160	50	**732-0599**
Sheets	140×200	50	**732-0597**
Sheets	160×180	50	**732-0606**
Sheets	200×200	50	**732-0592**

Blotting paper, grade 703

Ideal for use as wicks in protein and nucleic acid blotting. Provides a uniform flow of buffer through the gel to the transfer membrane in a blotting sandwich. Also suitable for use in removing gels from glass supports.

- Made of 100% cotton fibre
- Uniform and smooth
- Produced using ultra-pure water
- Contains no additives

Grade	703
Weight	185 g/m²
Thickness	0,38 mm
Herzberg flow rate	250 s per 100 ml at 10 cm head of water
Klemm wicking rate test	626 s per 7,5 cm rise

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	70×100	100	**732-0596**
Sheets	100×150	100	**732-0605**
Sheets	140×160	100	**732-0603**
Sheets	150×150	100	**732-0607**
Sheets	200×200	100	**732-0593**
Sheets	460×570	100	**732-0591**

Power supply, universal, PerfectBlue

VWR PerfectBlue power supply is constructed with PC housing and flame-retardant ABS face plate, and is ideal for DNA, RNA and protein electrophoresis, as well as blotting, and for routine horizontal and vertical electrophoresis.

- Compact size with a stackable case provides a small footprint
- TFT-LCD (2,4») colour screen shows all parameters during operation
- Timer with alarm function
- Constant voltage/current/power operation mode
- Restart the operating program automatically after power outage

The power supply is microprocessor controlled and has four pairs of outlet terminals which covers the broadest range of applications in the general laboratory. The microprocessor control can perform either continuously or as a timed output, and the user can pause and resume anytime without resetting the timer.

It can operate with a full programmable mode and offer up to six multi-step setting conditions. The unit has pre-programmed typical running conditions for easy start-up. It is designed with features to ensure laboratory and experiment safety.

Additional features include leakage detection, over-temperature/voltage/current protection, sudden load change detection and shrouded plugs and sockets. Voltage or current with automatic crossover, and when target constant mode is set, system automatically adjusts the two other parameter to maximum to allow constant run.

ELT certified.

Model	Universal
Current (mA)	1 – 700
Display	TFT
Input voltage (V)	100 – 240 V, 47 – 60 Hz
Operating conditions	4...40 °C
Operating constant modes	Current, voltage, power
Output current range/increments (mA)	1 – 700/1
Output voltage range/increments (V)	5 – 300/1
Power (W)	150
Timer	1 – 999 min with alarm, continuous
Weight (kg)	2,1
W×D×H (mm)	215×335×104

Description	Pk	Cat. No.
Power supply, universal, PerfectBlue	1	**700-1285**

Power supply, high current, PerfectBlue

VWR PerfectBlue power supply is constructed with flame-retardant ABC face plate and is ideal for DNA, RNA, and protein electrophoresis, as well as blotting and all routine horizontal and vertical electrophoresis.

- Compact size with a stackable case provides a small footprint
- TFT-LCD (2,4») colour screen shows all parameters during operation
- Timer with alarm function
- Constant voltage/current/power operation mode
- Restart the operating program automatically after power outage

The power supply is microprocessor controlled and has four pairs of outlet terminals which covers the broadest range of application in the general laboratory. The microprocessor control can perform either continuous or timed output, and the user can pause and resume anytime without resetting the timer.

The unit can operate with a full programmable mode and offer up to six multi-step setting conditions. It also offers pre-programmed typical running conditions for easy start-up. It is designed with features to ensure safety of the lab and experiment.

The high current power supply provides higher output current and power (W) compared to the universal model, to support higher performance in DNA electrophoresis, Western blotting and SDS-PAGE applications.

Additional features include leakage detection, over-temperature/voltage protection, sudden load change detection and shrouded plugs and sockets. Voltage or current with automatic crossover, and when target constant mode is set, system automatically adjusts the two other parameter to maximum to allow constant run.

Model	High current
Current (mA)	10 - 3000
Display	TFT
Input voltage (V)	100 - 240 V, 47 - 60 Hz
Operating conditions	4...40 °C
Operating constant modes	Current, voltage, power
Output current range/increments (mA)	10 - 3000/10
Output voltage range/increments (V)	5 - 300/1
Power (W)	300
Timer	1 - 999 min with alarm, continuous
Weight (kg)	2,1
W×D×H (mm)	215×335×104

Description	Pk	Cat. No.
Power supply, high current, PerfectBlue	1	**700-1316**

Gel documentation system, VWR® Basic

The VWR® Basic gel documentation system offers reproducible, high resolution digital images for gel documentation. This entry level system is easy to use and allows real time images to be captured and viewed directly on a PC or laptop (not supplied). The VWR® Basic system can be illuminated using transillumination from UV, white or blue light. These flexible lighting options make the VWR® Basic suitable for capturing and viewing images from a wide range of samples.

- High resolution digital camera with 18 megapixel resolution produces high quality images with precise band separation
- Full PC interface enables control of camera with real time imaging
- Programmable capture settings
- JPEG images can be saved onto a USB stick, hard drive or directly to a network by PC
- Powered by rechargeable battery (supplied)

Using the VWR® Basic system it is possible to produce images of electrophoresis gels stained with many fluorescent and colorimetric dyes, including: Coomassie® blue, silver stain, ethidium bromide, SYBR® Gold SYBR® Green, SYBR® Safe, SYPRO® Red, SYPRO® Ruby, or Fluorescein. As new dyes are released we work to optimise their use with the VWR® Basic system, so please ask your local VWR contact for updates.

VWR® Basic is also suitable for viewing and capturing images from agar plates of dark, light, or two colour colonies, cells in flasks, autoradiographs, DNA, RNA or protein on membranes, spot and slot blots of DNA, RNA or protein, cells or solutions in microtitre plates and DNA or protein macroarrays.

System is supplied with 18 megapixel camera, hood, UV filter and VWR® Gel Documentation Software. Illumination options must be ordered separately.

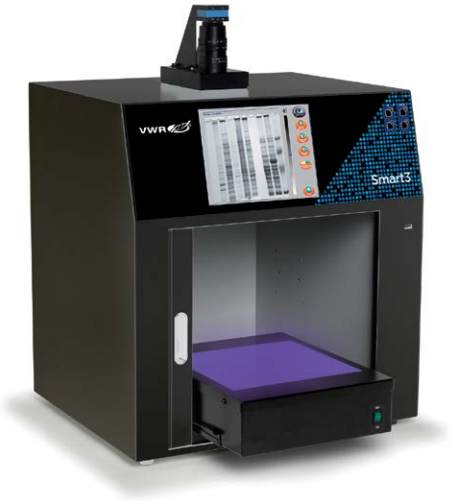
Model	VWR® Basic
Camera	24-bit colour
Camera resolution (pixels)	18 megapixels
Image storage	Memory card
Max. gel size, with hood (mm)	200×200
W×D×H (mm)	280×210×370
Zoom lens	3× optical, 18 - 55 mm

Description	Pk	Cat. No.
VWR® Basic	1	**730-1470**

Description	Pk	Cat. No.
Transilluminators for use with VWR® Basic		
UV transilluminator (200×200 mm, 302 nm)	1	**730-1464**
UV transilluminator (200×200 mm, 365 nm)	1	**730-1465**
UV transilluminator (200×200 mm, 254 nm)	1	**730-1466**
Blue light LED transilluminators, VWR® Blue		
VWR® Blue transilluminator (200×160 mm, 470 nm)	1	**730-1467**
Accessories		
UV to white light converter screen, 200×200 mm	1	**730-1395**

Gel documentation systems, VWR® Smart3 and Smart3 EZ

VWR® Smart3 and Smart3 EZ are complete stand-alone systems with integral processor, so no external PC is required.



- Real time images from 12-/16-bit, 3 megapixel camera
- Images can be saved as TIFF, BMP or JPEG files on a USB stick, hard drive or directly to a network via PC
- Integrated touch screen with icon-driven menus to guide user through system functions
- Sliding transilluminator tray offers easy access
- Filter drawer with optional interchangeable filters enables viewing of a wide range of fluorescent stains
- UV to white light converter screen (optional) simplifies imaging of protein gels, autoradiographs and colony plates

Using the VWR® Smart3 or Smart3 EZ system it is possible to produce images of electrophoresis gels stained with many many fluorescent and colorimetric dyes, including: Coomassie® blue, silver stain, ethidium bromide, SYBR® Gold, SYBR® Green, SYBR® Safe, GelStar®, SYPRO® Red, SYPRO® Ruby, SYPRO® Orange, Fluorescein, Pro-Q® Diamond, or Deep Purple™. As new dyes are released we work to optimise their use with the VWR® Smart systems, so please ask your local VWR contact for updates.

The VWR® Smart systems are also suitable for viewing and capturing images from agar plates of dark, light or two colour colonies, cells in flasks, autoradiographs, DNA, RNA or protein on membranes, spot and slot blots of DNA, RNA or protein, cells or solutions in microtitre plates and DNA or protein macroarrays.

Complete system includes 3 megapixel 12-/16-bit camera, manual zoom lens (VWR® Smart3) or motor-driven zoom lens (VWR® Smart3 EZ), darkroom, network connection, built-in processor (no PC required), VWR® Image Capture Software and two copies VWR® Gel Documentation Software. Illumination options must be ordered separately.

Model	VWR® Smart3	VWR® Smart3 EZ
Camera	1/3" sensor	
Camera resolution (pixels)	3 megapixels	
Dynamic range	3,6 - 4,8	
File bit depth (A/D)	12/16	
Max. gel size, with hood (mm)	200×200	
W×D×H (mm)	465×390×510	
Zoom lens	Manual (f/1,4) 6,5 - 39	Motorised (f/1,4)

Description	Pk	Cat. No.
VWR® Smart3	1	**730-1459**
VWR® Smart3 EZ	1	**730-1460**

Description	Pk	Cat. No.
Transilluminators for use with VWR® Smart		
UV transilluminator (200×200 mm, 302 nm)	1	**730-1461**
UV transilluminator (200×200 mm, 365 nm)	1	**730-1462**
UV transilluminator (200×200 mm, 254 nm)	1	**730-1463**
Blue light LED transilluminators, VWR® Blue		
VWR® Blue slim transilluminator (100×120 mm, 470 nm)	1	**730-1468**
Accessories		
Thermal printer, digital	1	**730-1260**
Thermal paper, matt	1 Roll	**730-2892**
Thermal paper, glossy	1 Roll	**733-2000**
UV to white light converter screen, 200×200 mm	1	**730-1395**
UV to blue light conversion screen 210×260 mm	1	**730-1493**

Gel documentation systems, VWR® Imager2 and Imager CHEMI Premium

VWR® Imager gel documentation and analysis systems are available in configurations suitable for fluorescence and chemiluminescence applications. Both models are fitted with a digital CCD camera (3,8 or 4 megapixels) which utilises the latest USB technology. The standard system features a 12-bit CCD camera that can be software modified to 16-bit. The CHEMI Premium system is equipped with a true 16-bit advanced cooled CCD camera able to capture images of a wide range of chemiluminescent samples using common substrates.

- Modular system can be tailored to meet specific user requirements
- Automated PC control speeds up image capture and the analysis process
- 16-bit performance for very accurate gel data
- Auto-locking door protects against accidental UV exposure and large door opening provides easy access for gel positioning and viewing
- Motor-driven optics and lighting options for easy system set-up and flexible imaging applications

The systems are fully computer controlled, with motor-driven lenses as standard in both systems (with feedback data on CHEMI Premium). The darkroom, fully light-tight and suitable for RGB and advanced chemiluminescent applications, has a robust, wide opening hinged door for easy access to the chamber and electronic auto-door lock with security function to prevent interruption during long exposures. Functions such as camera settings, lens control (including feedback data on CHEMI Premium), filter selection and lighting can all be set up from a PC (not supplied). In addition, user functions such as camera exposure, neutral fielding and extended dynamic range are also selected from the desktop. All these settings can be saved on one button in the user-defined configurations.

VWR® Imager systems incorporate advanced image capture software specifically developed to simplify the process of capturing gel images. VWR® Gel Documentation Image Capture Software is a fully automatic package that controls camera integration, exposure, lens and capture options with auto-focus configuration for precise focusing. VWR® Gel Documentation Software is an advanced, automated, analysis software that can rapidly analyse a gel from loading to output of results in a matter of seconds. Requiring minimal user training, VWR® Gel Documentation Software is able to handle a wide range of media including gels, plates, films and spot blots.

Using the VWR® Imager systems it is possible to produce images of electrophoresis gels stained with many fluorescent and colorimetric dyes, including: Coomassie® blue, silver stain, ethidium bromide, SYBR® Gold, SYBR® Green, SYBR® Safe, GelStar®, SYPRO® Red, SYPRO® Ruby, SYPRO® Orange, Fluorescein, Rhodamine Red™, Texas Red™, Pro-Q® Diamond, Deep Purple™ or GFP plates. In addition, the VWR Imager CHEMI Premium also offers imaging using chemiluminescence, bioluminescence, stain-free gels, Alexafluor dyes, CFTM Dyes, and Cy® dyes. As new dyes are released we work to optimise their use with the VWR® Imager systems, so please ask your local VWR contact for updates.

The standard system includes a 3,8 megapixel 12-bit digital CCD camera (16-bit file depth), motorised zoom lens, and 7-position filter wheel. The CHEMI Premium system includes a 4 megapixel 16-bit cooled digital CCD camera, motorised zoom lens with feedback, and 7-position motor driven filter wheel. All systems include a cabinet, white epi-light (overhead), VWR® Gel Documentation Software and VWR® Gel Documentation Image Capture Software, cables and support software pack. Illumination options must be ordered separately.

Model	VWR® Imager 2	VWR® Imager CHEMI Premium
Camera	CCD	CCD, QE 73% @ 425 nm
Camera resolution (pixels)	3,8 megapixels	4 megapixels
Cooling		–57 °C
File bit depth (A/D)	12-/16-bit	16-bit
Max. gel size, with hood (mm)	255×210	305×227
W×D×H (mm)	570×450×840	
Zoom lens	Motorised (f/1,2)	Motorised (f/1,2) with feedback

Description	Pk	Cat. No.
VWR® Imager 2	1	**730-1458**
VWR® Imager CHEMI Premium	1	**730-1469**

Description	Pk	Cat. No.
Accessories		
Epi UV module, with 2×302 nm tubes	2	**733-2615**
Blue light LED transilluminators, VWR® Blue		
VWR® Blue transilluminator (200×160 mm, 470 nm)	1	**730-1467**
Transilluminators for use with VWR® Imager2 and CHEMI Premium		
UV transilluminator (200×200 mm, 365 nm)	1	**730-1472**

Description	Pk	Cat. No.
Accessories		
UV transilluminator (250×300 mm, 365 nm)	1	**730-1473**
UV transilluminator (200×200 mm, 302/365 nm)	1	**730-1474**
UV transilluminator (250×300 mm, 302/365 nm)	1	**730-1475**
UV transilluminator (200×200 mm, 254 nm)	1	**730-1476**
UV transilluminator (250×300 mm, 254 nm)	1	**730-1477**
UV transilluminator (200×200 mm, 254/365 nm)	1	**730-1478**
UV transilluminator (250×300 mm, 254/365 nm)	1	**730-1479**
UV transilluminator (200×200 mm, 254/302 nm)	1	**730-1480**
UV transilluminator (250×300 mm, 254/302 nm)	1	**730-1481**
UV transilluminator (200×200 mm, 302 nm)	1	**730-1482**
UV transilluminator (250×300 mm, 302 nm)	1	**730-1483**
Accessories		
Thermal printer, digital	1	**730-1260**
Thermal paper, matt	1 Roll	**730-2892**
Thermal paper, glossy	1 Roll	**733-2000**
UV to white light converter screen, 305×330 mm	1	**730-1396**
UV to blue light conversion screen 210×260 mm	1	**730-1493**
UV to blue light conversion screen 250×300 mm	1	**730-1494**
White light pad, fold down, with brackets, 200×140 mm	1	**730-1391**
Epi UV module, with 2×365 nm tubes	1	**730-1392**
Epi UV module, with 2×254 nm tubes	1	**730-1394**
Epi-LED module, blue (peak 465 nm), CHEMI systems only	2	**733-2369**
Epi-LED module, blue (peak 465 nm), specially for multiplexing, CHEMI systems only	2	**733-2314**
Epi-LED module, green (peak 520 nm), CHEMI systems only	2	**733-2370**
Epi-LED module, green (peak 520 nm), specially for multiplexing, CHEMI systems only	2	**733-2315**
Epi-LED module, near IR (peak 740 nm), specially for multiplexing, CHEMI systems only	2	**733-2316**
Epi-LED module, red (peak 635 nm), CHEMI systems only	2	**733-2371**
Epi-LED module, red (peak 635 nm), specially for multiplexing, CHEMI systems only	2	**733-2372**
UV screen	1	**733-2616**

Chemiluminescence imaging system, VWR® CHEMI only

The VWR® CHEMI only system is dedicated to chemiluminescence imaging. The system is built for high performance and automation and features a next generation, high quantum efficiency CCD camera for even greater sensitivity. A very simple set-up process means a single click will automatically capture a quality image of any Western blot.

- Configured for maximum sensitivity to ensure even the faintest band on a blot can be captured
- High quantum efficiency camera (73% @ 425 nm) is very sensitive to low level light emissions
- Small footprint - takes up minimal bench space

Each system is supplied complete with 4 megapixel 12-/16-bit CCD camera, VWR® Image Capture Software and two copies VWR® Gel Documentation Analysis Software.

Model	VWR® CHEMI only
Camera	CCD, QE 73% @ 425 nm
Camera resolution (pixels)	4 megapixels
File bit depth (A/D)	16-bit
Lens	Fixed f0,95
W×D×H (mm)	370×470×460

Description	Pk	Cat. No.
VWR® CHEMI only	1	**730-1471**

Blue light LED transilluminators, VWR® Blue

Blue light transilluminators are often used as an alternative to UV transilluminators when users wish to use 'safe dyes' instead of ethidium bromide. A blue light transilluminator is a 'safe' light source, in that the user is not exposed to harmful UV radiation and samples are free from photonicking.

Description	Dimensions (mm)	Pk	Cat. No.
VWR® Blue transilluminator (200×160 mm, 488 nm)	210×330×90	1	**730-1389**
VWR® Blue slim transilluminator (100×120 mm, 488 nm)	210×210×30	1	**730-1390**

Safety spectacles, London

Stylish protective eyewear combining fashion, fit and function.

- Moulded-in nose bridge
- Soft, non slip rubber temple tips
- Ideal for small facial contours

89/686/EEC, EN 166:2001, EN 170, ISO 9001:2008; 166 FT CE (frame) 1 FT (lens)

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV (2-1,2), anti-scratch, anti-fog	Clear PC	Light blue	1	**111-1845**

Goggles, Kingston

Wrap-around modern style goggles, especially designed for small faces, provides excellent panoramic vision. The goggles consist of a PC lens, PVC frame and polyester/rubber headband.

- High comfort with maximum protection
- Fitted with indirect ventilation
- Opalescent frame prevents light reflection

89/686/EEC, EN 166:2001, ISO 9001:2008; EN 166 3 4 BT CE (frame); 1 BT 0 (lens)

Type	Lenses	Colour	Pk	Cat. No.
Anti-UV, anti-scratch, anti-fog	Clear PC	Translucent blue	1	**111-1841**

Refrigerated circulators

Stainless steel circulating baths with choice of Advanced Programmable or Advanced Digital temperature controller. Both are easy to navigate with large, intuitive displays and multiple communication options, including USB-A and B, RS232/485, Ethernet and external temperature probe. The reservoir drain can be accessed by removing the front panel. All models feature user-adjustable high temperature safety cut-off points as well as over-temperature protection. The DuraTop™ surface is cool to the touch even when operating at high temperatures.

- Working temperatures from –40 to +200 °C with stability of ±0,01 °C (except 45 litre models with maximum 135 °C)
- Variable speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180™ rotating controllers, LidDock™ lid stowing system, DuraTop™ chemically resistant deck and WhisperCool™ environmental control system reduces noise, increases refrigeration efficiency and lowers energy consumption
- Cool Command™ technology regulates the amount of cooling required, saving energy while providing rapid cooling and precise control at elevated temperatures
- Event scheduling (time and date), real time clock and temperature trends for up to 10 days with Programmable models
- Selectable home screens and on-screen help
- Automatic and/or user-adjustable performance optimisation

Advanced Digital models feature an intuitive 9,5 cm display with touch pad control, single point calibration, menus and prompts in 4 languages: French, German, Spanish and English.

Advanced Programmable models have an intuitive 10,9 cm SmartTouch display, 5-point calibration capability, menus and prompts in 6 languages: French, German, Spanish, English, Chinese and Arabic, plus time/temperature programming (ten 100-step programs).

Comply with DIN 12876-1, Safety Class III
Maximum pump capacities:
16,7 l/min, 250 mbar, 12,2 l/min suction

Supplied with a reservoir cover, bypass tubing, male inlet and outlet adapters for 47, 63 and 95 mm tubing, ¼" to M16 adapters are also included. For probes and accessories, please visit vwr.com or contact your local VWR sales office.

Cooling capacity at 20 °C

Type	Temp. range (°C)	Temp. stability (°C)	Heating capacity (kW)	Cooling capacity (kW)	Capacity (l)	Bath W×D×H (mm)	W×D×H (mm)	Pk	Cat. No.
Models with Advanced Digital temperature controller									
AD7LR-20	–20…+200	±0,01	2,2	0,2	7	142×157×127	411×589×411	1	**462-0224**
Models with Advanced Programmable temperature controller									
AP07R-20	–20...+200	±0,01	2,2	0,2	7	142×157×127	221×541×617	1	**462-0227**

Mini blot, 3-D shaker

The Mini blot shaker combines the actions of a rocker and a shaker to produce a three-dimensional motion that is gentle enough for fragile gels and blots, yet provides thorough mixing.

- Gyratory action for gentle, efficient staining
- Optimal pitch and speed for processing Western blots
- Can be used in an incubator or cold room

Designed for processing blots and staining applications, the pitch and speed of the shaker are optimally set to allow for use of a minimal amount of solution while preventing the membrane or gel from drying out. Using a smaller amount of reagents helps to conserve valuable probes and antibodies.

Supplied with a non slip rubber mat and two large blot boxes. Two sizes are available to hold blots of 8×10 and 10×10 cm gels. The larger boxes will accommodate gels from VWR's modular Mini vertical PAGE systems.

Model	Mini blot shaker
Angle (°)	Fixed 5
Max. load (kg)	0,8
Operating temperature range (°C)	Ambient +4...65
Platform W×D (mm)	200×165
Shaking motion	3-D
Speed (min^{-1})	Fixed 20
Weight (kg)	0,88
W×D×H (mm)	240×171×150

Description	Pk	Cat. No.
Mini blot shaker, EU-plug	1	**700-0245**
Mini blot shaker, UK-plug	1	**700-0246**
Mini blot shaker, CH-plug	1	**700-0247**

Rocking platform shaker

Rocking platform shaker with low profile design, can be used in most fume hoods and incubators. The cast aluminium base offers durability and stability, the spill resistant design channels fluids away from internal components. Precise speed control provides smooth, low speed rocking motion down to 1 min^{-1}.

- Microprocessor control provides electronic tilt angle adjustment from 0 to 15° while unit is operating
- LED display shows speed, tilt angle and time simultaneously
- Timer from 1 s to 160 h, with audible alarm when the time reaches zero
- Can be used at –10 to +60 °C (max. 80% relative humidity, non condensing) in cold rooms, incubators and CO_2 environments

Touch pad controls with easy to read LED display. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer displays elapsed time or, when programmed to user-defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off. Overload protection via audible and visual signals activated when system detects an obstruction or tray overload. Speed ramping feature slowly increases speed to desired set point to avoid splashing. Unit is ideal for cell culture work, staining and destaining gels, hybridisation procedures, haematology and blotting techniques.

Supplied with a 324×254 mm non slip rubber mat. Stacking tray must be ordered separately.

* Note: Maximum speed/tilt angle may vary with heavy or unbalanced loads.
** Centred on tray.

Model	Rocking platform shaker
Angle (°)	0 - 15*
Max. load (kg)	4,5**
Platform W×D (mm)	254×324
Shaking motion	Rocking
Speed range (min^{-1})	1 - 50*
Weight (kg)	6,5
W×D×H (mm)	279×432×127

Description	Pk	Cat. No.
Rocking platform shaker, EU-plug	1	**444-0756**
Rocking platform shaker, CH-plug	1	**444-0758**

Description	For	Pk	Cat. No.
Accessories			
Spare dimpled mat to prevent tubes from rolling around	Rocking platform shaker	1	**444-0768**
Stacking tray	Rocking platform shaker	1	**444-0772**

Rocking platform shakers

Rocking platform shakers have variable speed and adjustable tilt to provide optimum control of mixing conditions, a gentle wave motion is ideal for blotting membranes and gels. Shakers maintain constant speed regardless of load or voltage fluctuations. Durable shakers with choice of models with single- or double-tiered stainless steel platforms.

- Continuous or timer operation from 1 to 120 min, with automatic switch off
- Model with double platform increases sample capacity when bench space is limited
- Can be used at 4 to 65 °C (80% relative humidity, non condensing), in an incubator or cold room

IP protection class according to DIN EN 60529: IP 54

Supplied with non slip rubber mat.

Model	Single tier	Double tier
Angle (°)	±20	
Input power (W)	24	
Max. load (kg)	5	
Platform W×D (mm)	356×280	
Shaking motion	Rocking	
Speed (min^{-1})	6 - 120	
Weight (kg)	6,9	8,0
W×D×H (mm)	355×352×160	355×352×250

Description	Pk	Cat. No.
Rocking platform shaker, single tier, EU-plug	1	**444-0142**
Rocking platform shaker, single tier, UK-plug	1	**444-0143**
Rocking platform shaker, single tier, CH-plug	1	**444-0144**
Rocking platform shaker, double tier, EU-plug	1	**444-0145**
Rocking platform shaker, double tier, UK-plug	1	**444-0146**
Rocking platform shaker, double tier, CH-plug	1	**444-0147**

Lab mats, silicone

The reusable, environmentally friendly Lab Mat is an economical solution to help keep bench tops clean and safe from stains, spills and wear. The lab mat is made from a durable FDA-approved silicone material that creates a stain resistant, washable working surface. It is chemically inert and does not react with most chemicals.

- Protect bench tops from hot items up to 200 °C
- Large anti-skid and noise-dampening working surface
- Lip design around the outer edge of the mat helps contain spillage
- Washable with standard disinfectants in sinks or dishwashers to enable repetitive use
- Mat can be rolled up for compact storage
- Autoclavable at 121° for 15 minutes

The lab mat can be used with items such as centrifuges, vortex mixers, hot plates, stirrers, pipettes and so much more. Ideal for every type of laboratory and more specialised areas such as cold rooms, cleanrooms, sterile suites and areas where high sterility is a requirement.

Thickness (mm)	Colour	L×W (mm)	Pk	Cat. No.
2	Purple	350×600	1	**111-9200**

Bench protectors

High quality, smooth, absorbent paper that quickly absorbs liquid spills with a thick, laminated polyethylene layer that prevents seeping onto the work surface.

- Retains leaked reagents in radio-chemical laboratories and prevents radioactive contamination
- Enables recovery of leaked, expensive materials
- Breakage protection for hard surfaces
- Absorption layer for water or solvent moisture chambers
- Impermeable protective material for lining animal cages

Absorbance rate: 115-9220 and 115-9221: 500 ml/m^2
Absorbance rate: 115-0673: 750 ml/m^2

Colour	LxW (mm)	Packed	Pk	Cat. No.
White	460×570	Single sheets	50	**115-9220**
White	460×50 000	Roll	1	**115-9221**
White	460×570	Single sheets	50	**115-0673**

Capillary tips for gel loading

Non bevelled capillary section, non graduated, compatibility type H.

- The thin capillary fits between gel plates to allow the user to accurately fill the wells between the teeth of the gel comb
- Wide sealing areas to also fit older pipette barrels

Volume (µl)	Sterile	Length (mm)	Packed	Pk	Cat. No.
1 - 200	-	30	Bulk	1.000	**613-0257**
1 - 200	-	30	6 racks, 96 each	576	**732-0508**
1 - 200	+	30	6 racks, 96 each	576	**732-0509**

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