

Horizontal Gel Units

BENEFITS INCLUDE

- Ceramic cooling plate -**
 27 x 27cm (W x L) - can support either...
 - One 245 x 125mm or two 125 x 125mm SERVALYT™ PRECOTES™ IEF gels (see page 139);
 - Or up to a maximum of 30 SERVA IPG BlueStrips, each 3mm wide and up to 24cm in length (see page 140)
- Ceramic cooling plate can also be connected to the JULABO chiller to maintain IEF at...
 - 4°C for SERVALYT™ PRECOTES™ and PreNet™ IEF gels
 - 20°C for SERVA IPG BlueStrips
- Acrylic electrode frame -** sits directly on the ceramic cooling plate for IEF with SERVALYT™ PRECOTES™ and PreNet™ IEF gels
- Glass electrode frame -** sits flush with the ceramic cooling plate for optimal cooling efficiency and minimises mess caused by oil application during IEF with IPG strips
- Positive and negative electrodes -** made from clear acrylic clip neatly within the acrylic or glass electrode frame, allowing the voltage gradient to be fine-tuned along the entire length of each IPG strip
- Glass electrode weight -** ensures that the electrodes remain in complete contact with the positive and negative ends of each IPG strip or IEF gel during IEF
- 2mm shrouded power output connectors -** compatible with high voltage power supplies
- IEF tank or cooling plate -** can also be used for wick-based horizontal gel electrophoresis

The IEF-SYS Dedicated Isoelectric Focusing Unit

The recently redesigned Scie-Plas IEF-SYS unit has been optimised for isoelectric focusing applications using SERVA IPG BlueStrips and SERVALYT™

PRECOTES™ and PreNet™ IEF gels, also available through Scie-Plas.



TECHNICAL SPECIFICATION

| IEF-SYS Unit | | | | | | | |
|---|--|----------------|----------------|----------------|------|--------------|--------------|
| Maximum Sample Capacity | 30 x SERVA IPG strips (dimensions ranging from 70 x 3 x 1mm to 240 x 3 x 1mm [L x W x T]) 1 x 245 x 125mm or 2 x 125 x 125mm (W x L) SERVALYT™ PRECOTES™ IEF gels | | | | | | |
| Unit dimensions (W x D x H) inc. cooling coil | 46 x 41 x 11.5cm | | | | | | |
| Inner Tank Dimensions (W x D x H) | 37 x 31 x 8.5cm | | | | | | |
| Glass plate active dimensions (W x L x D) | 27 x 27 x 0.5cm | | | | | | |
| Electrode frame active dimensions (W x L x H) | 27 x 27 x 1cm | | | | | | |
| Cooling plate dimensions (W x L x D) | 27 x 27 x 3cm | | | | | | |
| Glass electrode weight | 20 x 26.5 x 1cm | | | | | | |
| Adjustable electrodes | 10 x 265 x 13mm | | | | | | |
| Recommended temperature for cooling plate during IEF with IPG strips | 20°C | | | | | | |
| Recommended temperature for cooling plate during IEF with IEF gels | 4°C | | | | | | |
| Power Output Connectors (diameter) | Shrouded, 2mm | | | | | | |
| Recommended Running Conditions for IEF with 125mm long SERVALYT™ PRECOTES™ IEF gels | Voltage Step | 1 | 2 | 3 | 4 | 5 | 6 end of run |
| | Voltage (V) | 300 | 600 | 1000 | 1200 | 1500 | 2000 |
| | Time (min) | 20 | 20 | 30 | 30 | 30 | 60 |
| Recommended Running Conditions for IEF of 7cm SERVA IPG strips | Voltage Step | 1 | 2 | 3 | 4 | 5 | 6 end of run |
| | Voltage (V) | 150 | 300 | 600 | 1500 | 3000 | 330 |
| | Time (h) | 0.5 | 0.5 | 0.5 | 0.5 | 2.5 | <20 |
| Recommended Running Conditions for IEF of 18cm SERVA IPG strips | Voltage Step | 1 | 2 | 3 | 4 | 5 end of run | |
| | Voltage (V) | 300 | 600 | 1500 | 3000 | 330 | |
| | Time (h) | 1 | 1 | 1 | 12.5 | <20 | |
| Snap-lock Connectors for Cooling Coil | Inner Diameter | 10mm | Outer Diameter | 12mm | | | |
| | Quick-fit Tubing | Inner Diameter | 10mm | Outer Diameter | 12mm | | |

Shrouded 2mm power output connectors compatible with all modern commercially available high voltage power supplies

Ceramic cooling plate is connected to the JULABO chiller to maintain IEF at 4 or 20°C for IEF gels or IPG strips

Adjustable electrodes - clip into slots within the acrylic or glass electrode frames, while the glass electrode support slab maintains uniform contact between the electrode and paper wicks for the IEF gel or IPG strip

Acrylic or glass electrode frame can be adapted for IEF with IEF gels and IPG strips respectively

SERVALYT™ PRECOTES™: OUTLINE PROTOCOL

1. Set the cooling temperature of the JULABO chiller, connected to the cooling plate by quick-fit tubing, to 4°C at least 10 minutes before using the unit.
2. Place the gel directly on top of the area covered by Bayol F or kerosene and, by using a pipette or electrophoresis roller (42991.01), gently disperse any bubbles underneath the gel.
3. Immerse each electrode wick (42988.01) in its respective electrode solution (Scie-Plas recommends 100µl of electrode solution per cm of wick), depending on whether it is the anode (42984.03) or the cathode (42986.03). The length of the electrode wicks should correspond to the width of the precast gel.
4. Position the electrode wicks at either end of the IEF gel, at least 5mm inside each edge, so that they are aligned parallel with the red and black strips at either end of the gel. The distance between each electrode should be 10cm for SERVALYT™ PRECOTES™ IEF gels.
5. Place a clean, washed applicator strip (42915.01) in the middle of the gel.
6. Load 10µl of protein sample into each well with a pipette, reserving at least one well for a 10µl-aliquot of SERVA Liquid Mix IEF Markers 3-10 (39212.01).
7. After loading the gel, carefully lower the glass electrode weight over the anode and cathode electrodes, so that they remain in contact with the electrode wicks and gel during the application.
8. Perform IEF according to the recommended running conditions in Technical Specification. Once IEF is complete, the SERVALYT™ PRECOTES™ IEF gel is ready for staining.

ORDERING INFORMATION

Complete System

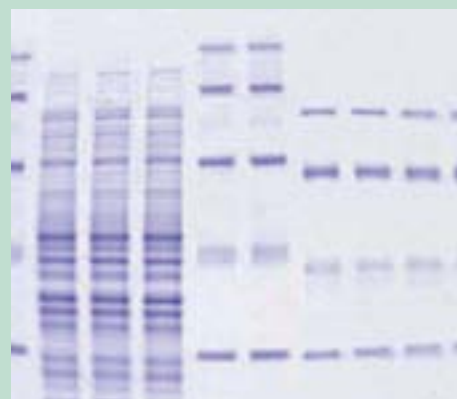
Part No.

Flat-bed isoelectric focusing unit includes running tank, lid,
1 x ceramic cooling plate, 1 x glass plate, 1 x electrode frame,
1 x anode electrode, 1 x cathode electrode,
1 x glass electrode weight,
2 x quick-fit tubes and 2 x 2mm power cables

IEF-SYS

Replacement Parts & Accessories

| | |
|---|---------|
| 1 x ceramic cooling plate for IEF-SYS | IEF-CP |
| 1 x glass plate for IEF-SYS | IEF-GF |
| 1 x electrode frame for IEF-SYS | IEF-EF |
| 1 x cathode electrode for IEF-SYS | IEF-CE |
| 1 x anode electrode for IEF-SYS | IEF-AE |
| 1 x glass electrode weight for IEF-SYS | IEF-GS |
| 2 x quick-fit tubes for cooling plate for IEF-SYS | TCS-CC |
| 2 x 1 metre power leads with shrouded 2mm power output connectors | CABLE-2 |



Protein samples in a SERVALYT™ PRECOTES™ Wide Range pH 3-10 IEF gel following IEF with the IEF-SYS unit and fixation and staining with SERVA Violet 17.