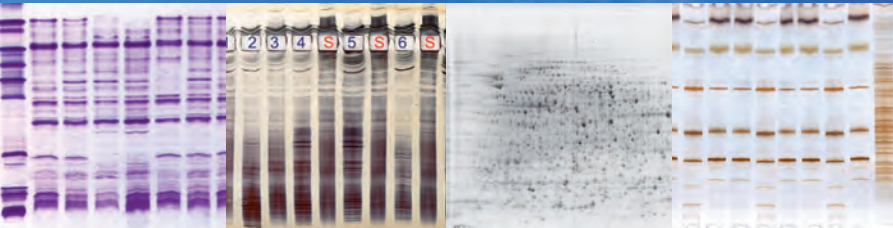


SERVA

■ serving scientists ■



HPE™ BlueHorizon™



The Better Flatbed Electrophoresis System

Best in Horizontal Electrophoresis

IEF, SDS PAGE, 2D

Broad Range of Precast Gels Available

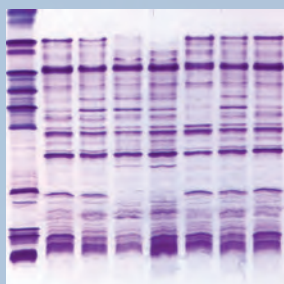
HCP Analysis by 2D WB

IQ/OQ/PQ & Workshops on Request

Replaces MultiPhor II™ – Compatible Format

Applications in IEF

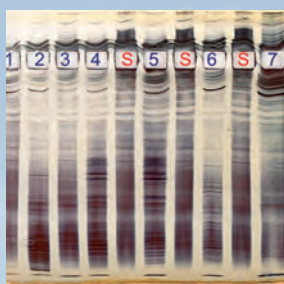
Isoelectric Focusing



Horizontal isoelectric focusing requires high voltage. For best separation, a system with high cooling efficiency is a must as provided by the HPE™ BlueHorizon™ resulting in unmatched resolution. Protocols for many applications available, such as agriculture (e.g. maize, wheat, sorghum, carrot, potato), veterinary (e.g. pork, cattle, turkey, chicken), food (e.g. meat, cheese, pasta) and health (e.g. MS, EPO, antibodies).

| Description | Size | Cat. no. |
|--|---------|----------|
| SERVALYT™ PRECOTES™ pH 3 – 10, size 245 mm x 125 mm x 0.3 mm | 5 gels | 42867.02 |
| FocusGel 3 – 10 24S, size 250 mm x 115 mm x 0.65 mm | 5 gels | 43335.01 |
| SERVA IEF Gel 3 - 9 for PhastSystem™, size 50 mm x 42 mm x 0.43 mm | 10 gels | 43366.01 |

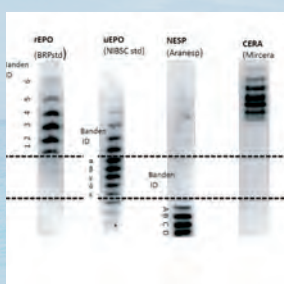
CSF Separation



The identification of oligoclonal bands in cerebrospinal fluid (CSF) continues to be the most sensitive diagnostic test for Multiple Sclerosis (MS). With the HPE™ BlueHorizon™ and the precast IEF gels for CSF SERVA offers a reliable system delivering highest resolution and reproducibility.

| Description | Size | Cat. no. |
|---|--------|----------|
| SERVALYT™ PRECOTES™ CSF Kit, 245 mm x 125 mm x 0.3 mm | 1 kit | 42800.01 |
| FocusGel 6 – 11 40S, size 250 mm x 115 mm x 0.65 mm | 5 gels | 43333.01 |
| CSF Analysis Kit for Phast™ System, 50 mm x 42 mm x 0.43 mm | 1 kit | 43393.01 |

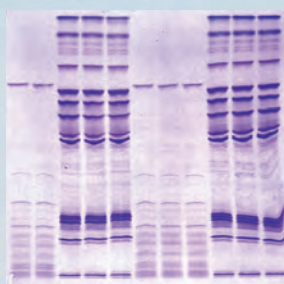
EPO Differentiation



For characterization of natural and recombinant erythropoietin (EPO) in QC (pharma) or doping control (NADA/WADA) the EPO Doping Kit allows horizontal, IEF based sample separation. After electrophoresis the separated protein bands can be blotted onto a membrane, e.g. by pressure blotting. Secure verification of EPO isoforms is then done by immuno detection.

| Description | Size | Cat. no. |
|------------------------|-------|----------|
| EPO Doping IEF Kit 30S | 1 kit | 43389.01 |

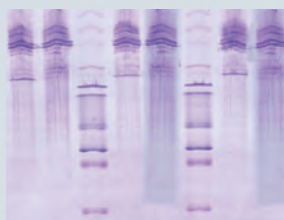
Blank PRECOTES™ and Blank FocusGels



Blank PRECOTES™ and Blank FocusGels can be equilibrated with every carrier ampholyte for highest flexibility. It allows i.a. the usage of very basic ampholytes and equilibration of the acrylamide gel matrix with urea for denaturing IEF applications.

| Description | Size | Cat. no. |
|---|--------|----------|
| Blank PRECOTES™ 125 mm x 125 mm x 0.3 mm | 5 gels | 42759.01 |
| Blank FocusGel 24S, 250 mm x 115 mm x 0.65 mm | 4 gels | 43413.01 |

Antibody Separation

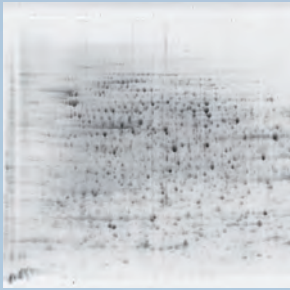


Use SERVA precast gels and the HPE™ BlueHorizon™ to screen the quality of recombinant antibodies. This reproducible and reliable system can further be qualified by IQ/OQ/PQ on request.

Please contact SERVA for a customized solution at tech.service@serva.de

Applications in SDS PAGE

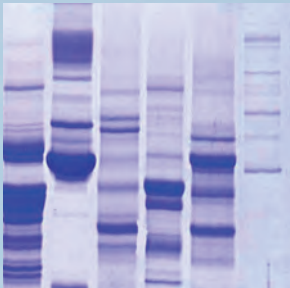
2D Electrophoresis



Horizontal 2D electrophoresis combines many advantages like higher resolution with up to 25 % more spots or much lower buffer consumption compared to traditional vertical systems. Easy handling is guaranteed due to the film-backed stabilization of the gels, available in 3 different formats.

| Description | Size | Cat. no. |
|---|-------|----------|
| 2D HPE™ Large Gel NF 12.5 % Kit, 255 mm x 200 mm x 0.65 mm | 1 kit | 43304.01 |
| 2D HPE™ Double Gel NF 12.5 % Kit, 250 mm x 110 mm x 0.65 mm | 1 kit | 43302.01 |
| 2D HPE™ Triple Gel NF 12.5 % Kit, 250 mm x 110 mm x 0.65 mm | 1 kit | 43300.01 |

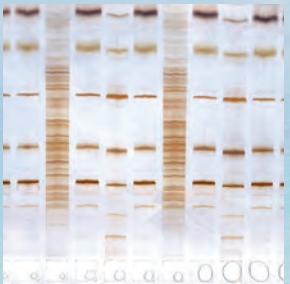
SDS PAGE



SDS PAGE carried out in horizontal orientation is a valuable option to replace common vertical SDS PAGE. SERVA delivers precast small and large format gels up to 255 mm x 200 mm. Efficient temperature control leads to superb resolution. Low buffer consumption, precast slots and easy handling of the film-backed precast gels are other benefits of the horizontal method.

| Description | Size | Cat. no. |
|---|-------|----------|
| SDS Gel Kit 10 % 25S, 250 mm x 125 mm x 0.45 mm | 1 kit | 43359.01 |
| SDS Gel Kit NF 12.5 % 25S, 250 mm x 125 mm x 0.45 mm | 1 kit | 43363.01 |
| SERVA SDS Gel 8 - 25 % for PhastSystem™, size 50 mm x 42 mm x 0.43 mm | 1 kit | 43503.01 |

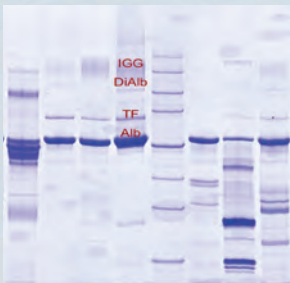
SDS TA PAGE



While most precast gels for SDS PAGE contain a neutral buffer system, the Excellent gels come with a tris/acetate buffer system showing comparable band patterns like the Excel™ gels from GE Healthcare. For separation of tissue extracts, caseins and more.

| Description | Size | Cat. no. |
|--|-------|----------|
| Excellent Gel Kit 7,5 %, 250 mm x 125 mm x 0.43 mm | 1 kit | 43422.01 |
| Excellent Gel Kit NF 7,5 %, 250 mm x 125 mm x 0.43 mm | 1 kit | 43424.01 |
| Excellent Gel Kit 12,5 %, 250 mm x 125 mm x 0.43 mm | 1 kit | 43421.01 |
| Excellent Gel Kit NF 12,5 %, 250 mm x 125 mm x 0.43 mm | 1 kit | 43423.01 |
| Excellent Gel Kit 15 %, 250 mm x 125 mm x 0.43 mm | 1 kit | 43425.01 |
| Excellent Gel Kit NF 15%, 250 mm x 125 mm x 0.43 mm | 1 kit | 43426.01 |

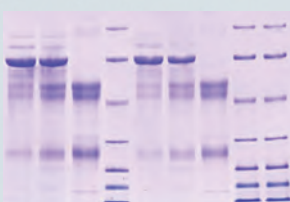
Urinary Protein Analysis



The SDS Urine Gel is optimized for urine protein separation and delivers reliable and reproducible results in horizontal gel electrophoresis. This kit allows simultaneous analysis of up to 25 samples including marker lanes, the maximum loading volume is 15 µl.

| Description | Size | Cat. no. |
|--|-------|----------|
| SDS Urine Gel Kit 25S, 250 mm x 125 mm x 0.45 mm | 1 kit | 43391.01 |

Antibody Separation

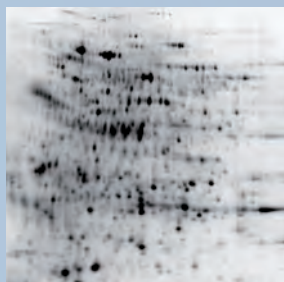


Apply SDS PAGE to analyse your recombinant antibodies. SERVA precast gels and HPE™ BlueHorizon™ can be qualified by IQ/OQ/PQ on request.

Please contact SERVA for a customized solution at tech.service@serva.de

Other Applications

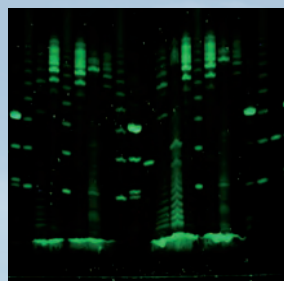
HCP Analysis by 2D Western Blotting



The development of SERVA HPE™ 2D Gels for Western Blotting is a powerful tool to perform state-of-the-art HCP analysis by gel-based electrophoretic separation of samples. After 1D and 2D electrophoresis, the samples are transferred to a membrane and then detected with HCP-specific antibodies.

| Description | Size | Cat. no. |
|----------------------------------|-------|----------|
| 2D HPE™ Triple BlotGel NF 12,5 % | 1 kit | 43429.01 |
| 2D HPE™ Double BlotGel NF 12,5 % | 1 kit | 43430.01 |
| 2D HPE™ Large BlotGel NF 12,5 % | 1 kit | 43432.01 |

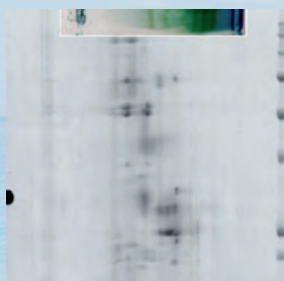
Analysis of glycans by HPE™ Electrophoresis



The high-end separation of glycans by HPE™ flatbed electrophoresis was made possible by two parallel, interlocking innovations: (1) The development of a new chemical one pot method to release glycans from proteins including fluorescent labelling of released glycans by ANTS and (2) the development of the HPE™ GlycoGel horizontal, film backed precast gels. The large format HPE™ GlycoGels (250 mm x 125 mm x 0,43 mm) allow a resolution of up to 13 GUs. After electrophoresis the ANTS labelled, clearly defined glycan bands can be visualized and captured by an imaging system by applying a UV 365 transilluminator in combination with a 525 nm filter.

For more information please contact SERVA at tech.service@serva.de.

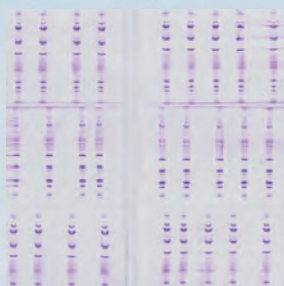
Native PAGE



Blue and clear native PAGE allow the usage of horizontal large format gels, film-backed for easy handling. Standard native PAGE and 2D native PAGE are feasible to separate large membran protein complexes.

Please contact SERVA for ordering information at tech.service@serva.de

Bi-Directional Electrophoresis & 4-Electrode Lid



By using an electrode lid with three electrodes, i.e. the anode in the middle and both cathodes on the outside, the number of samples to be analysed can be doubled. This modified lid can be used whenever short runs are applicable for a reliable analysis.

A 4-electrode lid is available on request, please contact SERVA at tech.service@serva.de.

| Description | Size | Cat. no. |
|--|---------|----------|
| 3-Electrode Lid for Bi-Directional Electrophoresis | 1 piece | HPE-3EL |

IPG Tray with Electrode Lid



Turn your HPE™ BlueHorizon™ into a 1st dimension IEF device for 2D electrophoresis! The HPE™ IPG tray holds up to 12 IPG strips ranging from 7 cm up to 24 cm, each. The flexible design allows the electrode spacing to be adapted to the IPG strips used. This makes the system flexible and versatile. The high current required for IPG strip focusing is supplied by the robust 6000 V high-voltage power supply.

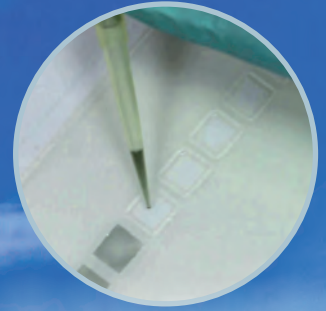
| Description | Size | Cat. no. |
|----------------------------------|---------|-------------|
| HPE™ electrode lid with IPG tray | 1 kit | HPE-ELIPG |
| BluePower™ 6000 IPG Power Supply | 1 piece | BP-6000-IPG |

HPE™ BlueHorizon™ – optimized performance in flatbed gel electrophoresis

The HPE™ BlueHorizon™ is a flatbed system for horizontal electrophoresis using precast gels, self-cast gels and gel strips. Main applications are isoelectric focusing (IEF - like CSF, seed and food analysis, EPO, separation of antibodies and other recombinant proteins), SDS and native PAGE, 2D electrophoresis as well as separation of nucleic acids. The HPE™ BlueHorizon™ flatbed electrophoresis system provides unmatched resolution, reproducibility and sensitivity – the first true „High Performance Electrophoresis (HPE)“ system



Safety lid with unbreakable, robust platinum electrodes, flexible positioning



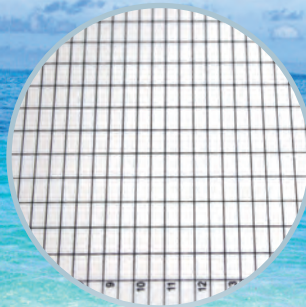
Low buffer consumption, gels are easy to load



Stackable: Up to 4 units for simultaneous operation



Drawer with safety lock, convenient to handle



Ceramic cooling plate, easy alignment of gels

- Compatible with all types of flatbed electrophoretic applications
- Highest resolution achieved using premium quality ceramic cooling plate
- Thin polyacrylamide gels, format up to 260 mm x 205 mm
- Broad range of precast gels for versatile applications available
- Complete range of reagents and consumables for self-casting of flatbed gels available
- IQ/OQ/PQ qualification on request
- Technical support and workshops
- Replacement of MultiPhor II™*: compatible format

*MultiPhor II™ = reg. trademark of GE Healthcare

HPE™ BlueHorizon™ – a modular system that grows with your needs

The HPE™ BlueHorizon™ is a very flexible system that could easily be extended to a two-, three- or four-deck system, still under the control of one power supply and one chiller. Stable set-up is guaranteed by stabilizing feet and clamps connecting the single units. For bi-directional electrophoresis a unit equipped with a three-electrode lid is available.



Specifications

| | |
|-----------------------------|---------------------------|
| Voltage (max.) | 3000 V |
| Current (max.) | 25 mA |
| Maximum gel size | 260 x 205 mm |
| Electrode distances at | 270 mm, 195 mm and 115 mm |
| Temperature operating range | 4 °C to 30 °C |
| Dimensions (WxHxD) | 450 x 120 x 500 mm |
| Weight | 6 kg |

Ordering information

| Product | Size | Cat. no. |
|---|-------------|-------------|
| HPE™ BlueHorizon™ | 1 unit | HPE-BH |
| BluePower™ HPE™ 3000 Power Supply | 1 unit | BP-3000-HPE |
| HPE™ Cooling Unit (Chiller) | 1 unit | HPE-CU1 |
| HPE™ BlueHorizon™ PS (HPE™ BlueHorizon™ + BluePower™ HPE™ 3000 Power Supply) | 1 system | HPE-BHP |
| HPE™ BlueHorizon™ C (HPE™ BlueHorizon™ + HPE™ Cooling Unit) | 1 system | HPE-BHC |
| HPE™ BlueHorizon™ System (HPE™ BlueHorizon™ + BluePower™ HPE™ 3000 Power Supply + HPE™ Cooling Unit) | 1 system | HPE-BHSYS |
| HPE™ BlueHorizon™ Double Deck | 1 unit | HPE-BHD |
| HPE™ BlueHorizon™ Triple Deck | 1 unit | HPE-BHT |
| HPE™ BlueHorizon™ Quadra Deck | 1 unit | HPE-BHQ |
| Stabilizing Feet, for HPE-BH | 1 pair of 2 | HPE-SF |
| Stabilizing Clamps, for HPE-BH | 1 pair of 2 | HPE-SC |
| HPE™BlueHorizon™ Bidirectional | 1 unit | HPE-BH3E |
| 3-Electrode Lid for Bi-Directional Electrophoresis | 1 unit | HPE-3EL |

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