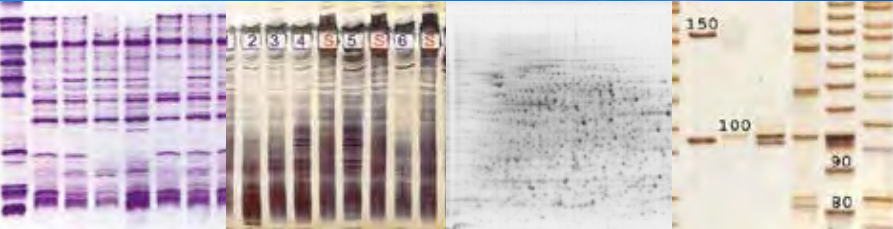


# SERVA

■ serving scientists ■



## HPE™ BlueHorizon™



The Better Flatbed Electrophoresis System

Best in Horizontal Electrophoresis

IEF, SDS & Native PAGE, 2D, DNA

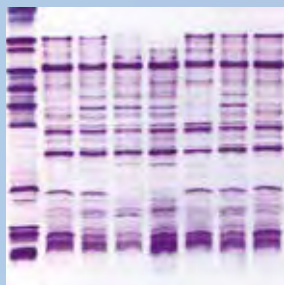
Broad Range of Precast Gels Available

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).

### Ordering information

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

## CSF Separation

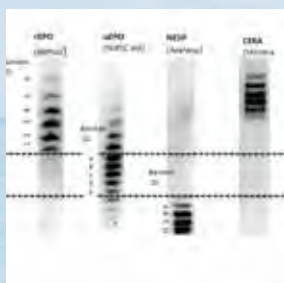


The identification of oligoclonal bands (OB) in cerebrospinal fluid (CSF) continues to be the most sensitive diagnostic test for Multiple Sclerosis (MS). With the HPE™ BlueHorizon™ and the precast IEF gels for CSF SERVA offers a reliable system delivering highest resolution and reproducibility.

### Ordering information

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

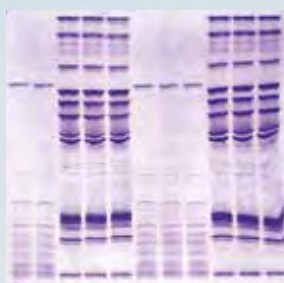


For characterization of natural and recombinant erythropoietin (EPO) in QC (pharma) or doping control (NADA/WADA) the EPO Doping Kit allows horizontal, IEF based sample separation. After electrophoresis the separated protein bands can be blotted onto a membrane, e.g. by pressure blotting. Secure verification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

### Ordering information

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

## Blank PRECOTES™/PreNets™ and Blank FocusGels

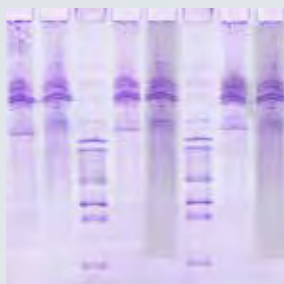


Blank PRECOTES™/PreNets™ and Blank FocusGels can be equilibrated with every carrier ampholyte for highest flexibility. It allows e.g. the usage of very basic ampholytes and equilibration of the acrylamide gel matrix with urea for denaturing IEF applications.

### Ordering information

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
Blank PreNets™, 125 mm x 125 mm x 0.3 mm	5 gels	42758.01

## Antibody Separation

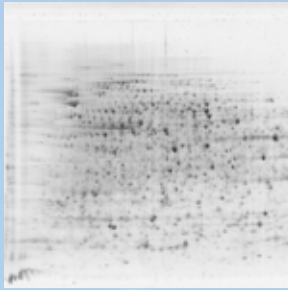


Use SERVA precast gels and the HPE™ BlueHorizon™ to screen the quality of recombinant antibodies. This reproducible and reliable system can further be qualified by IQ/OQ/PQ on request.

Please contact SERVA for a customized solution at [tech.service@serva.de](mailto:tech.service@serva.de)

# Applications in SDS PAGE

## 2D Electrophoresis

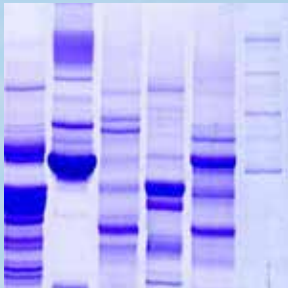


Horizontal 2D electrophoresis combines many advantages like higher resolution with up to 25 % more spots or much lower buffer consumption compared to traditional vertical systems. Easy handling is guaranteed due to the film-backed stabilization of the gels, available in 3 different formats.

### Ordering information

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

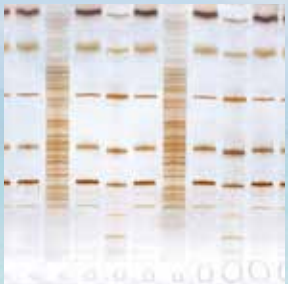


SDS PAGE carried out in horizontal orientation is a valuable option to replace common vertical SDS PAGE. SERVA delivers precast small and large format gels up to 255 mm x 200 mm. Efficient temperature control leads to superb resolution. Low buffer consumption, precast slots and easy handling of the film-backed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

### Ordering information

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

## SDS TA PAGE

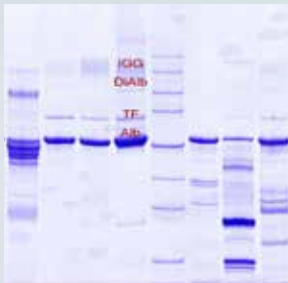


While most precast gels for SDS PAGE contain a neutral buffer system, the SDS TA gels come with a tris/acetate buffer system showing comparable band patterns like the Excel™ gels from GE Healthcare. For separation of tissue extracts, caseins and more.

### Ordering information

Description	Size	Cat. no.
1D SDS TA Gel Kit 12.5 %, 250 mm x 125 mm x 0.43 mm	1 kit	43415.01
1D SDS TA Gel Kit NF 12.5 %, 250 mm x 125 mm x 0.43 mm	1 kit	43379.01
1D SDS TA Gel Kit 7.5 %, 250 mm x 125 mm x 0.43 mm	1 kit	43416.01
1D SDS TA Gel Kit NF 7.5 %, 250 mm x 125 mm x 0.43 mm	1 kit	43414.01

## Urinary Protein Analysis

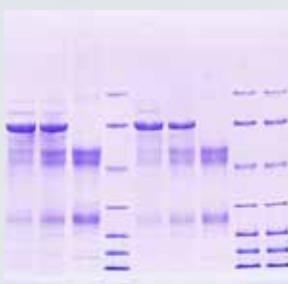


The SDS Urine Gel is optimized for urine protein separation and delivers reliable and reproducible results in horizontal gel electrophoresis. This kit allows simultaneous analysis of up to 25 samples including marker lanes, the maximum loading volume is 15 µl.

### Ordering information

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

## Antibody Separation

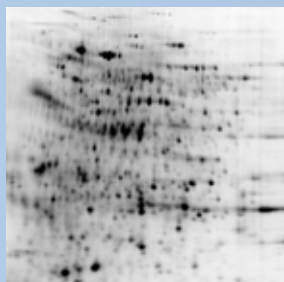


Apply SDS PAGE to analyse your recombinant antibodies. SERVA precast gels and HPE™ BlueHorizon™ can be qualified by IQ/OQ/PQ on request.

Please contact SERVA for a customized solution at [tech.service@serva.de](mailto: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.

Please contact SERVA for a customized solution at [tech.service@serva.de](mailto:tech.service@serva.de)

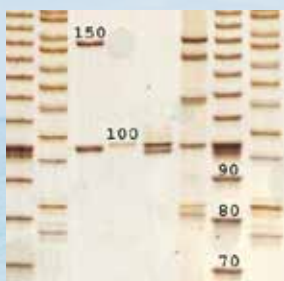
## Native PAGE



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](mailto:tech.service@serva.de)

## Nucleic Acid Separation

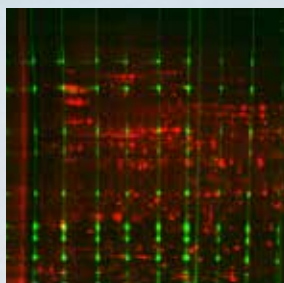


Horizontal separation of DNA fragments in polyacrylamide gels can be performed with highest resolution by applying adequate buffer systems offered by SERVA. For SSCP analysis precast CleanGels will be rehydrated with DNA Disc Electrophoresis Buffer shortly before use.

### Ordering information

Description	Size	Cat. no.
Clean Gel 10 % 52S, 250 mm x 125 mm x 0.43 mm	4 gels	43340.01
DNA Disc Electrophoresis Buffer Kit	1 kit	43356.01

## Custom Development



New applications in any kind of horizontal electrophoresis like Mercator gels for 2D standardization or special methods like amyloid, alpha-1-antitrypsin, amyloidase or HCP assays can be developed in close co-operation between researchers and the SERVA application lab.

### Ordering information

Description	Size	Cat. no.
2D HPE™ Mercator Gel 12.5 % Kit	1 kit	43410.01

Please contact SERVA for a customized solution at [tech.service@serva.de](mailto:tech.service@serva.de)

## SERVA offers a comprehensive list of reagents to cast your own horizontal gels:



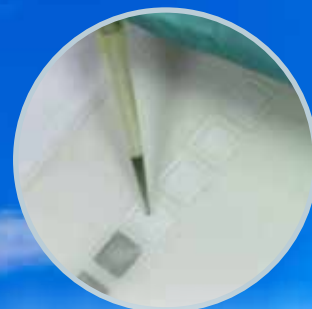
- Acrylamide solutions
- GEL-FIX™ supporting film
- SERVLYT™ Carrier Ampholytes
- BlueSlick™ for treatment of glass plates
- Accessories like glass plates, spacers etc.

## 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



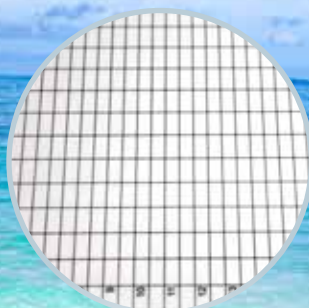
Low buffer consumption, gels are easy to load



Stackable: Up to 4 units for simultaneous operation



Drawer with safety lock, convenient to handle



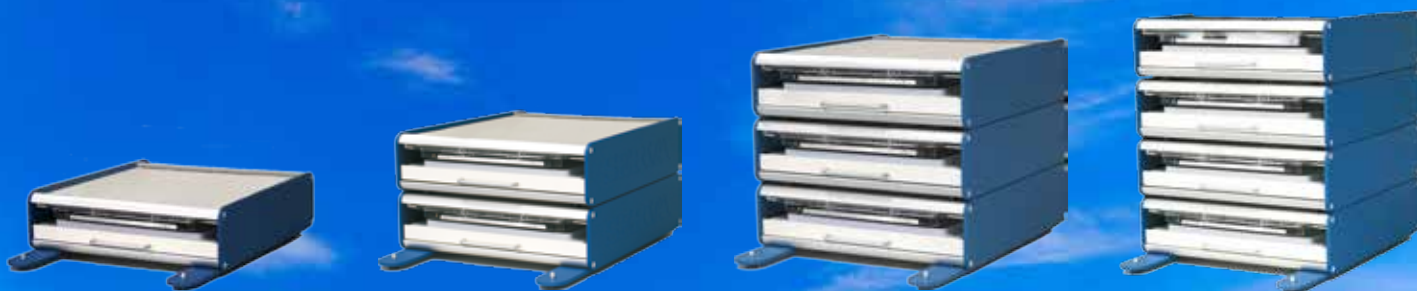
Ceramic cooling plate, easy alignment of gels

- Compatible with all types of flatbed gel electrophoresis
- 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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Version 19/03

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