#### Who We Are: Company Profile

"SERVA Serving Scientists" is our mission to supply top quality products that meet the demand of the life sciences research community. The SERVA portfolio comprises fine biochemical reagents and products for separation of biomolecules with focus on electrophoresis specialties. All processes are subject to SERVA's quality management system certified according to ISO 9001:2015.

#### What We Do: Continuing Product Development in Electrophoresis

Our strategy is to provide a comprehensive assortment of traditional as well as innovative specialties - all you need for your experiment. Well known in the community of Isoelectric Focusing are the SERVALYT carrier ampholyte buffers. At SERVA, we develop and produce special reagents for protein electrophoresis, e.g. precast gels (SERVALYT™ PRECOTES™, Focus-Gel), markers, solutions, stains. One of our latest and famous technologies is "HPE™" (High Performance Electrophoresis) - a workflow in protein analysis which combines horizontal conventional electrophoresis with superb resolution applying large gel format (HPE<sup>™</sup> 2D Large Format Gels) using a unique equipment (HPE<sup>™</sup> BlueHorizon<sup>™</sup> System). Based on requests from customers we developed the complete workflow and protocols for various applications, e.g.:

- Isoelectric Focusing analyzing samples from food, plant, seed, diagnostics (e.g., urine, EPO)
- SDS PAGE 1D and 2D / DIGE Western Blotting (proteomics, HCP coverage analysis)
- Fluorescent, colorimetric and chemiluminescent detection and documentation

#### But that's not all

SERVA offers everything for common slab gel mini electrophoresis calling it "PRiME™" (Premium Resolution in Mini Electrophoresis) - precast gels, gel media, buffers, blotting. Our equipment line called "BlueLine™" supports the electrophoretic separation and is exclusively available from SERVA and "made in Germany".

#### Better than just replacement

You have protocols in place that utilizes products that are no longer available? Looking for replacement of "ExcelGel™", "PhastGel®" or "Multiphor™ II" or even an automated gel staining device? No problem. We have the solution (and the products) to transfer those applications to state-of-the art technology utilizing HPE™.



The name "SERVA" is best-known for almost 70 years. SERVA Electrophoresis GmbH was founded 1998 as mid-sized private-owned entity. As the successor of the former SERVA Feinbiochemica GmbH & Co. KG originally established in 1953 the know-how and expertise in biochemistry and protein separation stay with us until today. The company is located in the heart of Heidelberg, a center of excellence in life sciences research. Heidelberg is situated within the enlarged Rhine-Neckar metropolitan region, a multi-industrial area where many Biotech companies, pharmaceutical and chemical enterprises are settled.

#### **SERVA Electrophoresis GmbH**

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SERVA serving scientists

# **HCP Analysis** and Beyond

Qualified Workflow HCP 2D WB Analysis Horizontal 2D HPE™ Electrophoresis Blotting & Detection Acquisition & Analysis



www.serva.de

- **IOPQ**, Application Support & Services



## Workflow HCP Analysis by 2D Western Blotting and Suitable SERVA Products

#### A. HCP Sample Preparation

It starts with the quality of the sample to be analyzed. Many factors play an important role here, e.g. the choice of the right lysis buffer.

Your protocol

#### **B.** Desalting

A too high salt content is a frequent cause of "poor" results. This is where "X-Spinners" from SERVA can help.



#### **C.** Fluorescent Pre-Labelling

With SERVA SciDyes (2, 3 and 5) or SERVA Lightning Red, SERVA offers fluorescent dyes for pre-labelling your HCP sample.



SERVA SciDyes, SERVA HPE™ Lightning Red

#### D. 2D Electrophoresis: Isoelectric Focusing (1<sup>st</sup> Dimension) & SDS PAGE (2<sup>nd</sup> Dimension)

Apply SERVA IPG BlueStrips for 1<sup>st</sup> dimension. Separate the proteins in the newly developed SERVA 2D HPE™ Large Format Gels (255 mm x 200 mm) for blotting, which are not firmly attached to the back-up film, on the flatbed electrophoresis chamber HPE™ BlueHorizon™. Receive up to 20 % more spots compared to standard methods (literature reference available).



#### E. In-Gel Fluorescence Detection

Get your high resolution reference pattern of your HCP sample.



Your gel documentation system

#### F. Semi-Dry Blotting

After separation of gel and back-up film the proteins can be easily and quickly transferred to the membrane by semi-dry blotting. The handling is surprisingly simple and the results are convincing.



Xpress Blotting Kit – BlueBlot Semi-Dry Blotter + BluePower™ 300 BLOT Power Supply

#### **G.** Fluorescence Detection on Membrane

Check out the transfer efficiency by comparing the in-gel and on-membrane patterns of your HCP sample.



Your gel documentation system

#### H. Blocking

Protein-free blocking by applying BlueBlock PF is the best way to obtain blots that are as background free as possible.



#### **Quality Matters**

Particularly in biotechnological production, compliance with quality standards is crucial for companies. SERVA offers qualification services (IOPQ) for our equipment line "*BlueLine*™". It is a unique service only available with us carried out by our experts - from installation and operation quality assurance to process quality assurance within the framework of maintenance contracts, adapted to your needs as silver, gold or platinum level.

#### What We Offer: Service and Support - Our Application Specialists are Ready

Our technical service department supports you with online services, videos, webinars and workshops. Need assistance beyond the standard support? Our experts can help you to establish your workflow – e.g. antibody separation by IEF, 2D Western blot-based HCP analysis? From sample preparation to evaluation we will consult confidentially our customers - our know-how for your success.

### I. Antibody Probing (HCP AB, Anti IgG HRP)

Probe your membrane-bound proteins with primary and secondary antibodies.

Your antibodies

#### J. Chemiluminescent Detection

Highly sensitive enhanced chemiluminescence kit for the detection of HRP-labelled antibodies.



SERVALight CL HRP WB Substrate Kits

#### K. Imaging

Detect HCP-specific, antibody-labelled proteins with a fluorescence or chemiluminescence imaging system.



Your gel documentation system