

# Gel-free electrophoresis now at SERVA

FreeFlow Electrophoresis is a versatile, powerful technique for separating and analyzing proteins, peptides and nucleic acids in a liquid medium under the influence of an electric field. It offers several advantages over gel-based electrophoresis, especially for the separation of complex mixtures and large volumes.



NEW at SERVA Electrophoresis GmbH

## HPE™ FreeFlow Electrophoresis

Downstream Compatibility



ELISA  
Enzyme assays  
FACS  
Spectroscopy  
Electrophoresis  
Chromatography  
ESI / MALDI

### The key points

**The principle:** In contrast to conventional electrophoresis, which uses a gel matrix, FFE separates charged particles in a free-flowing medium without sieve effect.

**The design:** The FFE consists of a thin, flat chamber through which the sample and buffer run in a parallel, laminar flow. An electric field is applied perpendicular to the direction of the flow deflecting the molecules of the sample according to their net charge and size.

**The separation:** The molecules are separated according to their electrophoretic mobility, migrate to different positions across the width of the chamber and are collected in a microtiter plate.

### Examples of possible separations in FreeFlow Electrophoresis

PROTEINS	MEMBRANES	BIOPARTICLES	ORGANELLES	MISCELLANEOUS
Proteomes from: Human tissue Body fluids E. coli Yeasts Plants  Isoforms of: Glycoproteins Antibodies etc.	from: Human cells Erythrocytes Thymocytes Lymphocytes Kidney cells  Plants Bacteria	Bone marrow cells PMN Leukocytes Blood platelets Thymus cells Kidney cells Spleen cells Spermatozoa Bacteria Parasites etc.	Melanosomes Calciosomes endosomes Lysosomes Peroxisomes Vesicle Endoplasmic reticulum Mitochondria etc.	Chiral organic compounds Liposomes Peptide hormones Ions Amphoteric substances, e.g. SERVALYT™

If you are interested, please contact us:

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