

# SERVA dedicated to serving science for more than 50 years



## Serving Scientists

SERVA was founded 1953 in Heidelberg, to supply fine biochemical reagents to research laboratories in academia and industry. The SERVA name literally means to "serve science" (SERVA = lat. servare). Close to 60 years after its inception SERVA remains as committed as ever to servicing the worldwide scientific community.

Lomb Scientific has distributed SERVA products for many years and as the exclusive SERVA distributor has developed a series of promotions to highlight both the extensive and the unique products available in the SERVA range.

The initial promotion focuses on the SERVA range of electrophoresis and in particular consumables for isoelectric focusing (IEF).

## Electrophoresis Products Featured:



- SERVALYT™ Carrier Ampholytes
- SERVALYT™ PRECOTES/PreNets™ Precast Gels & Kits
- SERVALYT™ PreNets™
- Blank PRECOTES™/PreNets™

**Discover More:** The new **SERVA Catalogue 2010/11** is now available and features products for Biochemicals, Electrophoresis, Life Science and Bioseparations.

**Request your copy online:** [www.lomb.com.au/Serva/catalogue](http://www.lomb.com.au/Serva/catalogue)

# SERVA IEF Product Overview



## SERVA IEF Product Overview

- SERVALYT™ Carrier Ampholytes
- SERVALYT™ PRECOTES/PreNets™ Precast Gels & Kits



SERVALYT™ Carrier Ampholytes are low molecular weight molecules of zwitterionic character. They are a mixture of synthetically derived species of average molecular weight distribution of 400 to 1000 dalton and comprise a multitude of varying pI-values. In agarose and polyacrylamide gels containing ampholytes, a linear pH gradient will be built up when an electric field is applied - the ampholyte molecules »carry« a net charge and thus migrate in the electric field between the electrodes as long as they will reach the position of corresponding pI. They will stop moving then and form small plateaus (*stationary stacks*).



### Benefits Summary

- » high resolution due to multimeric composition
- » fast staining and destaining times
- » clear background associated with very low unspecific binding of dyes and stains
- » high solubility in trichloroacetic acid (*fast removal of ampholytes during fixation*)
- » virtually no interaction with metal ions

### SERVALYT™ Carrier Ampholytes Product Range

pH Range	Code	Unit	Price	Code	Unit	Price
2-4	42902.01	10 ml	\$277	42902.02	25ml	\$493
2 - 9 Seed Mix	42935.01	10ml	\$277	42935.02	25ml	\$493
	42935.03	100ml	\$1,349			
2-11	42900.01	10ml	\$277	42900.02	25ml	\$493
3-4	42922.01	10ml	\$328	42922.02	25ml	\$556
3-5	42903.01	10ml	\$277	42903.02	25ml	\$493
	42903.04	2ml	\$147			
3-6	42944.01	10ml	\$277	42944.02	25ml	\$493
	42944.04	2ml	\$147			
3-7	42945.01	10ml	\$277	42945.02	25ml	\$493
3-10	42940.01	10ml	\$277	42940.02	25ml	\$493
3-10 Iso-Dalt *	42951.01	10 m	\$328	42951.02	25ml	\$556
	42951.04	2ml	\$147			
4-5	42923.01	10ml	\$328	42923.02	25ml	\$556
	42904.01	10ml	\$277			
4-6	42904.01	10ml	\$277	42904.02	25ml	\$493
	42904.04	2ml	\$147			
4-7	42948.01	10ml	\$277	42948.02	25ml	\$493
	42948.04	2ml	\$147			

pH Range	Code	Unit	Price	Code	Unit	Price
4-9 T **	42910.01	10ml	\$185	42910.02	25ml	\$292
	42910.03	100ml	\$868			
5-6	42924.01	10ml	\$328	42924.02	25ml	\$556
5-7	42905.01	10ml	\$277	42905.02	25ml	\$493
	42905.04	2ml	\$147			
5-7 PGM	42936.01	10ml	\$328	42936.02	25ml	\$556
5-8	42949.01	10ml	\$277	42949.02	25ml	\$493
	42949.04	2ml	\$147			
5-9	42950.01	10ml	\$277	42950.02	25ml	\$493
6-7	42925.01	10ml	\$328	42925.02	25ml	\$556
6-8	42906.01	10ml	\$277	42906.02	25ml	\$493
	42906.04	2ml	\$147			
6-9	42913.01	10ml	\$277	42913.02	25ml	\$493
	42913.04	2ml	\$147			
7-9	42907.01	10ml	\$277	42907.02	25ml	\$493
	42907.04	2ml	\$147			
9-11	42909.01	10ml	\$277	42909.02	25ml	\$493

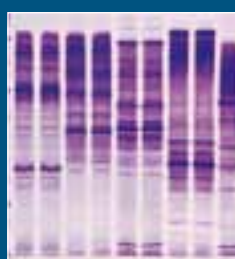


**Discover More:** Click on the link [www.lomb.com.au/SERVA/Servalyt](http://www.lomb.com.au/SERVA/Servalyt) to download the Product Specifications

## SERVA Biochemicals A - Z

- » Comprehensive range
- » Individual certificate of analysis available for every product
- » Commitment to quality: TQMS ISO 9001:200

Simply visit: [www.lomb.com.au/SerVA/Biochemicals](http://www.lomb.com.au/SerVA/Biochemicals)



# SERVA IEF Product Range

## Precast Horizontal Gels



SERVA offers a broad range of precast polyacrylamide gels for horizontal isoelectric focusing. The polyacrylamide layer is either bound to a sturdy support GEL-FIX™, an inert polyester film, activated to bind irreversibly to polyacrylamide, or to NetFix™, an inert polyester fabric, activated to bind polyacrylamide but open to both sides of the gel. NetFix™ is particularly useful when blotting is applied after electrophoresis as it stabilises the gel but leaves both gel surfaces open, suitable for transfer.

The surface of each precast gel is protected with a thin cover sheet (GEL-FIX™ for covers) against damage and drying out. SERVA precast gels are packed individually in a sealed bag to prolong shelf life and are ready-to-use a choice of thin and ultrathin gel layers. For most applications, the 0.3 mm gel thickness is recommended, gels of 0.15mm thickness are advised when high resolution is required and low amount of sample material is available. The gel composition is 5 % T and 5 % SERVALYT™.

Samples are loaded by use of an applicator strip (made from silicon). Various strips differing in number and shape of slots are available from SERVA. The applicator strip can be positioned at any location on the gel - samples can be loaded at optimum of solubility, anodically to mid-position to cathodically. Usually, an IEF run is completed within 3 hours (depending on gel size). Staining is performed in the same way as one is used to from handling other gels, precast or self-cast. There is no need to change the staining procedure or protocol. Standard gel staining protocols are used to stain the gels which can be air-dried over night at room temperature.

## SERVA Precast Gels for IEF Overview

### SERVALYT™ PRECOTES™

General purpose gels, ready to use, selected pH ranges and formats. SERVALYT™ PRECOTES™ boxes contain only the gels. Wicks, electrode buffers and applicator strips (necessary to run the gels) have to be ordered separately.

Code	PAG Layer	Size	Unit	Price
<b>SERVALYT™ PRECOTES™ Wide Range pH 3 -10</b>				
42965.03	150µm	125 x 125mm	5 pieces	\$414
42967.02	150µm	245 x 125mm	5 pieces	\$542
42866.02	300µm	125 x 125mm	5 pieces	\$414
42867.02	300µm	245 x 125mm	5 pieces	\$542
<b>SERVALYT™ PRECOTES™ pH 3 -6</b>				
42974.02	150µm	125 x 125mm	5 pieces	\$414
42919.03	150µm	245 x 125mm	5 pieces	\$542
42874.02	300µm	125 x 125mm	5 pieces	\$414
<b>SERVALYT™ PRECOTES™ pH 4 -6</b>				
42875.02	300µm	125 x 125mm	5 pieces	\$414
<b>SERVALYT™ PRECOTES™ pH 6 -9</b>				
42978.02	150µm	125 x 125mm	5 pieces	\$414
42878.02	300µm	125 x 125mm	5 pieces	\$414

### IEF Accessories

SERVA offers a wide range of accessories for IEF including:

- Adhesive tapes
- Applicator strips
- Anode and cathode fluids and buffers
- Clamps
- Electrowicks
- Glass plates
- Reagents



**Discover More:** Click on the link [www.lomb.com.au/SERVA/Precast-Gels](http://www.lomb.com.au/SERVA/Precast-Gels) to download the Product Specifications

## SERVA Life Science

- » Molecular Biology
- » Microbiology
- » Plant Biology
- » Cell Culture
- » Antibiotics
- » Protease and Phosphatase Inhibitor Mixes
- » Hormones and Vitamins



Simply visit: [www.lomb.com.au/SerVA/Life-Science](http://www.lomb.com.au/SerVA/Life-Science)

Valid to 30/06/2010



## SERVALYT™ PreNets™

IEF separates proteins in their native state. When transferred onto membranes, proteins feature full antigenicity and can be detected by specific antibodies. Moreover, the blotted proteins may be subjected to enzymatic reactions to further assess functional pathways. Blotting of gels bound to support film cannot be performed without removal of the film backing (film is not permeable in electroblotting). But IEF gels are very thin and carry the risk of tearing during handling.



SERVA developed the SERVALYT™ PreNets™ particularly for use in blotting experiments and assays which assess enzymatic activity of gel separated proteins. They are precast gels, used in the same manner as the related SERVALYT™ PRECOTES™ except that the gel, supported by the fabric, is permeable for electrotransfer. The gel layer is not covalently bound to the backing and is lifted off easily.

Code	Description	Unit	Price
42738.02	pH Range 3-10, SERVALYT™ PreNets™	5 pieces	\$499
42748.02	pH Range 4-6, SERVALYT™ PreNets™	5 pieces	\$499

## Blank PRECOTES™/PreNets™

Blank PRECOTES™ and Blank PreNets™ were developed by SERVA to provide a versatile solution to perform Isoelectric Focusing (IEF) of any pH range. Blank PRECOTES™ are thin (0.3 mm) polyacrylamide gels cast onto GEL-FIX™ support film that contain only BisTris buffer pH 6.5, Blank PreNets™ are cast onto Net-Fix™ to facilitate blotting.

They are given the prefix »blank« to indicate that they are (*almost*) "empty" gels with a matrix that can be adapted to anything the user wants it to be. To perform IEF, Blank PRECOTES™/PreNets™ are equilibrated in the ampholyte mixture of choice for 30 minutes prior to electrophoresis. Resolution is at least as good, sometimes found even superior, compared to the results obtained with gels of "cast-in" ampholytes.

Code	Description	Gel Size	Unit	Price
42759.01	Blank PRECOTES™	125 x 125mm, 300µm	5 pieces	\$273
42710.01	Blank PRECOTES™	245 x 125mm, 300µm	5 pieces	\$359
42758.01	Blank PreNets™	125 x 125mm, 300µm	5 pieces	\$293

### Benefits Summary

- » can be adapted to any pH-range desired by rapid equilibration
- » suited for IEF in the basic pH-range
- » suited for IEF in the presence of urea
- » excellent resolution
- » long shelf life
- » blotting gels available

 **Discover More:** Click on the following link [www.lomb.com.au/SERVA/Precotes-PreNets](http://www.lomb.com.au/SERVA/Precotes-PreNets) to download the Product Specifications

## Additional products available in the SERVA Electrophoresis product range include:

- Protein standards (IEF, SDS and native PAGE)
- 2D (IPG, ICPL)
- Gel Media, buffers and stains
- Gel documentation and analysis system



## SERVA Bio Separation

- » Electrophoresis
- » Enzymology
- » Ion Exchange Media
- » Collagenase and Neutral Protease
- » Dialysis
- » Albumins

Act quickly and be among the first to secure a copy of the new SERVA Electrophoresis 2010/11 catalogue. **Request your copy online:** [www.lomb.com.au/SerVA/catalogue](http://www.lomb.com.au/SerVA/catalogue)



Simply visit: [www.lomb.com.au/SerVA/Separation](http://www.lomb.com.au/SerVA/Separation)

Valid to 30/06/2010