

# Protein electrophoresis

Interchim BioSciences innovation proposes a complete range of other products for electrophoresis and downstream analysis: see the [Protein Electrophoresis Chart](#) []

## Electrophoresis Gels – matrice rgts & soln, precast gels <sup>(446)</sup>

### Technical tip – Electrophoresis gels

Polyacrylamide gels are formed by the polymerization of acrylamide monomers into long chains. The polymerization of the acrylamide matrix is dependent on the presence of a cross-linker and the generation of free radicals.

The most commonly used cross-linker is N,N'-methylene-bisacrylamide (Bis). Ammonium persulfate (APS) is often used to initiate polymerization because APS generates oxygen free radicals resulting from its' chemical decomposition ( $S_2O_8^{2-}$ ,  $SO_4^{2-}$ ). N,N,N',N'- Tetramethylethylenediamine (TEMED), a free radical stabilizer, enhances the gel polymerization rate.

The quality and the cross-linking structure of the polyacrylamide used for protein electrophoresis have a direct effect on the quality of high-resolution separations. Thus, the preparation of gels with extremely pure Acrylamide and bis- Acrylamide is essential. SDS (sodium dodecyl sulfate, a detergent) is included in the gel and buffer for SDS-polyacrylamide gel electrophoresis; it binds to and denatures protein molecules, allowing them to be separated on the basis of their molecular weight alone. It is thus used as one method of determining the molecular weights of isolated protein chains.

### ■ Acrylamides

Acrylamides are the most used matrix used for protein electrophoresis, so-called PAGE (Polyacrylamide Gel Electrophoresis), starting with the SDS-PAGE method for protein molecular size determination, the Native Electrophoresis, the IEF method for determination of protein isoforms, and their combinations, notably 2 Dimensional electrophoresis (IEF/SDS PAGE).

Uptima reagents provide highest quality for high resolution matrix in 1-D, 2-D and IEF separations.

#### ● Uptima Standard stock solutions:

**Acrylamide/Bis-Acrylamide 19:1 Solution 40%** see [technical sheet](#)  
UP86489B, 500 ml

contains 38.0% Acrylamide/2.0% bis-Acryl (w/v)

**Acrylamide/Bis-Acrylamide 29:1 Solution 40%** **UP864927, 500 ml**

contains 38.67% Acrylamide/1.33 bis-Acryl (w/v)

**Acrylamide/Bis-Acrylamide 37.5:1 Solution 40%** **UP864937, 500 ml**

contains 38.96% Acrylamide/1.04% bis-Acryl (w/v) (or 30:0.8 Solution)

Benefits of solutions compared with home mode solutions:

- Gain of time : ready-to-use
- Safer : no cancerogenic powder
- more reproducible : highly controlled

#### ● Uptima Concentrate stock solutions– Biotechnology grade:

see [technical sheet](#)

Purchase these solutions if a variable and/or custom concentration and ratio is needed.

**Acrylamide Solution 4X-40%** **873376, 500 ml**

**Bis-Acrylamide Solution 2%** **UP864965, 500 ml**

#### ● Also exists as powders, and proteomic grade solutions.

Please see the [Laboratory Biochemicals catalog](#), or inquire +

Please search more products in the [Electrophoresis web pages](#).

### ■ Other biochemicals for gel/matrices preparation

#### ● crosslinkers for acrylamide gel preparation:

Le bis-Acrylamide est le crosslinker le plus largement utilisé pour réticuler (crosslinker les chaînes d'acrylamide) des gels d'électrophorèse. 2 crosslinkers alternatifs sont disponibles pour rendre les gels plus flexibles et résistants, diminuer le bruit de fond dans certaines colorations de gels/protéines

**Bis-Acrylamide Solution 2%** **UP864965, 500ml**

N,N'-Methylene-Bis-Acrylamide

Le crosslinker classique pour polymériser les gels d'électrophorèse en polyacrylamide.

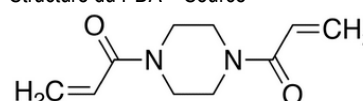
[Technical sheet](#) (bis, PDA, DATP)

**Piperazine Diacrylamide (PDA, BPD)** **1A5041, 10g**

CAS: 6342-17-2; EC [261-277-3]; CAS: [58477-85-3]; MW: 157.17 194.23; ()

Polymérise les gels d'électrophorèse (PAGE, IEF, et séquençage de protéines) donnant une meilleure résolution séparative et moins de bruit de fond en coloration par l'argent. Accroît aussi la force en tension pour les faibles % T. S'utilise en remplacement direct du Bis-Acrylamide (même ratio).

Structure du PDA Source



Structure du DATP (118221):

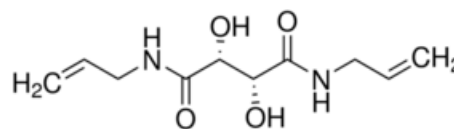
**N-N' diallyltartardiamide (DATD)**

**118221, 50g**

CAS:58477-85-3; MW:228.25; ()

Un crosslinker utile pour préparer les gels délectrophorèse en polyacrylamide.

Référence: Kelkar RS, Mahen AA, Saoji AM, Kelkar SS. N-N' diallyltartardiamide (DATD) as a cross-linking agent for polyacrylamide gel disc electrophoresis of human serum proteins. J Postgrad Med [serial online] 1986 [cited 2013 Feb 14];32:27-31.



### ●Reducers for electrophoresis

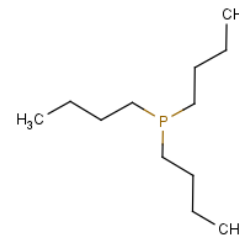
#### Tributylphosphine (TBP)

T09230, 250g

CAS :CAS:998-40-3; MW:202.32

Agent réducteur utilisé pour la préparation d'échantillons protéiques en électrophorèse (IEF, 2D).

La réduction suivie d'un alkylation par l'iodoacétamide améliore la résolution de séparation, permet de charger plus d'échantillon, et de visualiser des protéines très peu abondantes. Aussi utilisé comme catalyseur en synthèse organique (1,4-addition avec des disulfides pour la thioétherification des alcools; acylation pour préparer des esters actifs; hydroformylation of alkenes par le cobalt).



### ●Agaroses:

Agarose is usually used for nucleic acids electrophoresis, but some agarose types also provide nice analytical method for large proteins. See more in the Genomics catalog[BD001c].

**AGAROSE, regular uses (Trial Size)**

31272L, 100g

31272L, 500g

[Technical Sheet](#). Search [more agaroses](#).

## ■ New Electrophoresis X'PRESS Technology (NEXT GEL™)

The new generation of ultra-resolutive and ultra-rapid gels

**Save time ! Ready-to-use, in just ONE min !**

- No stacking gel needed
- All-in-one Product: just add APS/TEMED then pour!
- 20X running buffer included

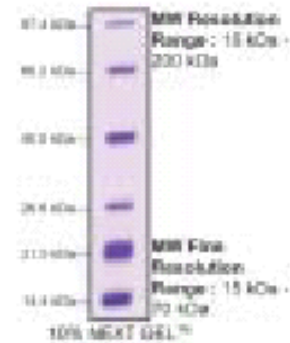
**Highly resolutive and suitable for distant MW analysis !**

- Resolve 14.2kDa proteins from 14.4 kDa proteins on one mini-gel
- Separate proteins ranging from 3.5kDa to 212 kDa on one non-gradient gel

**Safe, stable and economic:**

- Stable at room temperature for over 1 year
- No hazardous shipping charges
- Much less expensive that pre-cast gels

Also available in specific formats – **Sprint NEXT Gels, Fluo NEXT Gels**



The unique matrix of NEXT GEL - proprietary chemistry- slows the migration of proteins, eliminating the need of a stacking gel. It has gradient-like properties, which enables the separation of small peptides and high molecular weight proteins in the same gel –match or exceeds resolution of pre-cast gradient gels!). It also permits the proteins to run across a longer gel surface resulting in increased resolution.

This system is fully compatible with all standard SDS-PAGE, 1D and 2D equipments, and all downstream applications such as Western blots, protein sequencing, MALDI analysis, and common stain methods.

Beside the original format, the NEXT GEL™ family includes special formats dedicated to large proteins, large gels, native proteins and HTS applications. See below.

Description	Fine resolution range	cat.# / 100ml	cat.#/500ml (1)
<b>Acrylamide based</b>			
<b>NEXT Gel™ - original ultra-fine resolutive</b>			
NEXT Gel 5%	50-200 KDa	GS4270	GS4271
NEXT Gel 7.5%	20-100 KDa	GS4280	GS4281
NEXT Gel 10%	10-70 KDa	BG6290	BG6291
NEXT Gel 12.5%	10-50 KDa	GS4290	GS4291
NEXT Gel 15%	5-40 KDa	GS4300	GS4301
NEXT Gel Running Buffer, 20X		GS4310 (2)	GS4311
NEXT Gel Trial Kit		/ 1 kit (3)	
<b>Sprint NEXT Gel™ - for running mini-gels in &lt;30min</b>			
Sprint NEXT Gel 10%		CI3000-M312	CI3001-M312
Sprint NEXT Gel 12.5%		CI3010-M311	CI3011-M311
<b>TurboNEXT Gel™ - for running large gels</b>			
TurboNEXT Gel 7.5%		DR9190-M323	DR9191-M323
TurboNEXT Gel 10%		CI2980-M313	CI2981-M313
Turbo NEXT Gel 12.5%		CI2990-M310	CI2991-M310
<b>Fluorescent SprintNEXT Gel™ - for direct bands vizualisation</b>			
Fluorescent SprintNEXT Gel 10%		CN0170-M317	CN0171-M317
Fluorescent SprintNEXT Gel 12.5%		CN0250-M318	CN0251-M318
<b>Agarose based</b>			
<b>Agarose NEXT Gel™</b>			
LP-NEXT Gel™	1-3 000KDa	BI6150 / 1 kit (4)	-M272
HTS-NEXT Gel™		IU6350 / 1 kit (5)	-M281
Native NEXT Gel™		BI6140 / 1 kit (6)	-M271

[Prices and technical sheets on line](#)

(5) Sample kit  
Trial kit contains 30ml each 5/7.5/10/12.5/15% NEXT GELS, 250 ml Running Buffer and 1 ml Sample Loading Buffer

(1) Each package of 500ml contains reagents for 50 mini and 20 regular gels.

(2) This Buffer is ready to dilute and will achieve high resolution on a wide range of protein fragment sizes.

(4) LP-NEXT GEL™ kit includes sufficient materials to run 50 mini-gels : sample buffer 4X (5ml) , Agarose High Resolution Protein (25g), running buffer 20X (500ml)

(5) HTS NEXT GEL™ contains sufficient reagents for 5 (25 cm x 25 cm) gels: includes HTS Agarose, Running Buffer, 20x NEXT GEL™ Sample Buffer 4x

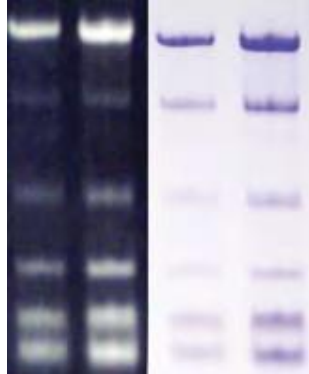
(6) Native NEXT GEL™ kit contains sufficient reagents for 30-50 mini-gels: includes HTS Agarose, Running Buffer, 20x, and Sample Buffer 4x

**Sprint NEXT Gel™** cast and polymerize a 10x10x0.75cm mini-gel in less that 15min, run in >30min !



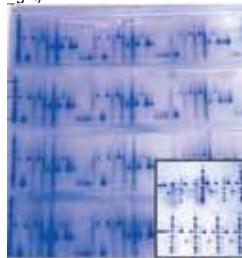
**Turbo NEXT Gel™** is optimized for larges gels: 16-x16cm gels are cast in 2.5-3hours [Image]

**FluorescentNEXT Gel™** includes a fluorescent protein stain that allows to visualize proteins bands within 5min of UV illumination. The stain is compatible with downstream applications including Western blotting and 2-D electrophoresis.



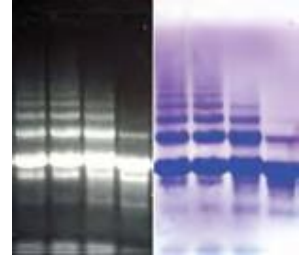
MW markers separated on Fluorescent NEXT Gel and visualized under UV (3-5min – link) or after coomassie staining (+ hour – right)

**HTS- NEXT Gel™** allows for the analysis of 20 to 200 samples in one to two hours, using SDS PAGE standard horizontal gel apparatus.



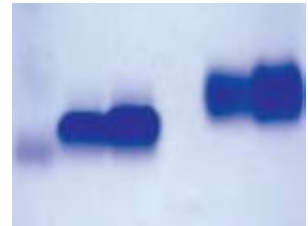
4% HTS NEXT Gel analysis of MW markers

**LP- NEXT Gel™** is optimized for the separation of SDS-denatured proteins between 0.2 and 6.4 megadaltons. It provides with optional fluorescent stain.



Cross-linked myosin on 1% fluorescent LP-Next Gel (link: UV light for 3-5min; right: Coomassie staining-3H procedure-)

**Native NEXT Gel™** include a proprietary agarose blend and running buffer optimized for optimal resolution while maintaining native protein confirmation. is optimized to analyse proteins while maintaining their native conformation. The agarose gel eliminates hazards concerns and simplifies recovery of the protein following electrophoresis.



Lane 1: Trypsin Inhibitor. Lane 2: BSA. Lane 3: BSA. Lane 4: Blank. Lane 5: Glucose Oxidase. Lane 6: Glucose Oxidase. (Proteins stained with Coomassie® Blue)

## ■ GEBAGEL electrophoresis precast gels & runner system

An economic, easy-to-use horizontal electrophoresis system, with resolutive and cost-effective pre-cast gels

**User-friendly** protein electrophoresis system.

**Easy-to-use:** horizontal apparatus (deposit sample with standard pipette tips).

**No special loading tips needed**, agarose standard-loading tips used.

**No leakage** of running buffer from inner tank to the outer tank.

**Running buffer saving**, use 150 ml only, with the same standard Tris-glycine running buffer even for peptides

**High resolution:** sharper bands provide clear accurate results.

**Multiple applications:** proteins, peptides \*

**Cost-effective & 12-months shelf-life guarantee.**



The GeBa Electrophoresis system is a novel semi dry horizontal pre-cast gel system. Each research can have its own electrophoresis units instead of sharing costly systems! The horizontal design simplify considerably handling procedure:

No more cumbersome assembly of the gel with the running apparatus.

No adaptors required

Robust sample wells dividers eliminate damage when removing the comb and loading, and don't deform or fall over.

Effortless cassette opening compared to competitor pre-cast gels.

The GeBa Electrophoresis system is a very versatile system, for protein, peptide as well nucleic acids!

Gels can be removed easily, stained, electroeluted for MS, or electrotransferred using standard membrane transfer buffer.

Comparison of GeBaGel system with standard pre-cast gel (vertical) electrophoresis systems:

	Competitors	GeBaGel system
Mode	Vertical	Horizontal
System assembly	Assembly is awkward and need skill	Plus and play
Sample loading	Need skill, special loading tips	Easy
Leakage possibility	Exists from time to time	Not exists
Volume of buffer / run	500ml	only 150ml
Protein	costly buffers (MOPS, MES, HEPES)	regular Tris/Glycine buffer
Peptide	costly Tricine or MES buffer	regular Tris/Glycine buffer

	Home made gels	Pre-cast gels pH8.7	Pre-cast gels pH7	GeBaGels
Storage	--	--	++	++
Resolution	+++	++	+	++
Reproducibility	+	+	++	++
Cost	1-2€/gel for reagents +>1H working time* (25to7€ for 1to8gels)	Expensive (8-12€/gel)	Expensive (11-15€/gel)-	++
Ease of use	--	+	+	++
Applications	Proteins, Peptides	Proteins	Proteins	Proteins, Peptides,DNA, RNA



**250+(10) µl**



**100+(10)+100 µl**



**40 µl**



**25 µl**

**Wells Volume**

CHANGER LES REF ! ex BI9720 -> BI9725

	1+(1) wells	1+(1)+1 wells	10 wells	15 wells
<b>GeBaGel (Tris-Glycine)</b> 8 units				<b>NEW</b>
<b>7% GeBaGel</b>			<b>UVA830</b>	
<b>10% GeBaGel</b>	<b>DZ3841</b>	<b>DZ3901</b>	<b>BI9695</b>	<b>RC7582</b>
<b>12% GeBaGel</b>	<b>DZ3851</b>	<b>DZ3911</b>	<b>BI9705</b>	<b>RC7592</b>
<b>15% GeBaGel</b>			<b>UVA840</b>	<b>UVA850</b>
<b>4-12% GeBaGel</b>	<b>DZ3871</b>	<b>DZ3941</b>	<b>BI9715</b>	<b>RC7602</b>
<b>8-16% GeBaGel</b>	<b>DZ3891</b>	<b>DZ3971</b>	<b>BI9725</b>	<b>RC7622</b>
<b>4-20% GeBaGel</b>	<b>DZ3881</b>	<b>DZ3961</b>	<b>RC7732</b>	<b>RC7612</b>
<b>GeBaGel (TBE-Urea)</b> 8 units				
<b>6% GeBaGel TBE-Urea</b>	<b>RC7642</b>	<b>RC7660</b>	<b>DZ4050</b>	<b>DZ4080</b>
<b>12.5% GeBaGel TBE-Urea</b>	<b>RC7650</b>	<b>RC7670</b>	<b>DZ4060</b>	<b>DZ4090</b>

Geba Electrophoresis system		
<b>GEBARUNNER</b> Electrophoresis system	<b>BI9740</b>	<b>1u</b>
<b>Starter kit :</b> <b>1 GebaRunner + 8 gels</b>	<b>BI9741</b>	<b>1 kit</b>

[Technical sheet](#) of the GebaRunner and GebaGels

Accessory reagents:

**Loading buffer 3X**

**CL6200, 1ml**

Included in each GebaGel pack of 8u, but also available as stand-alone.

## ■ ExpressPlus™ PAGE precast Gels

**Long shelf life, short running time, large loading volume, and high transfer efficiency.**

ExpressPlus™ PAGE Gels are upgraded from Express PAGE Gels with a shorter running time, larger loading volume, higher transfer efficiency, and most important – better price. The ExpressPlus™ PAGE Gels are cast in a weak acidic pH environment that minimizes the hydrolysis of polyacrylamide and results in extra gel stability and superior band resolution.

The ExpressPlus™ PAGE Gels are available in gradient (4 - 20 %, 4 - 12 %, and 8 - 16 %) and fixed (8 %, 10 %, and 12 %) concentrations and in 10 well, 12 well and 15 well formats. Gel cassette size: 100 x 85.4 x 4.7 mm (L x W x T), Gel size: 80 x 70 x 1 mm (L x W x T).

[Request free sample package](#) (Two 4- 20% 12 well gels, MOPS buffer powder and adapters for Invitrogen Novex® gel tanks)

1 Unit = 20 Gels

+ Free Pre-mixed MOPS buffer

1-2 Units	\$ 6 / gel
3-9 Units	\$ 5 / gel
10 units or more	\$ 4 / gel

### Features & Benefits

- Bis-Tris Gels:**  
Weak acidic pH environment, minimizes protein modifications and significantly delays acrylamide hydrolysis.
- Easy to Use:** Simple to set up, special loading tips not required.
- Large Loading Volume:**  
Upgraded loading volume (up to 80 µl)
- High Resolution:** Proprietary gel casting technique, high-resolution separation of protein bands.
- High Reproducibility:** Consistent performance from gel to gel.
- Long Shelf Life:** Up to 12 months if store at 2-8 °C.
- Compatible Cassette Design:**  
Compatible with most mini-gel tanks, adapters are included for Invitrogen Novex® Mini-Cell tank.
- Complimentary MOPS powder:**  
Good for 1 L MOPS buffer, convenient package.

● Product ordering information	cat.number (20 Gels)					
	4-20%	4-12%	8-16%	12%	10%	8%
ExpressPlus PAGE Gel, 10 wells	M42010	M41210	M81610	M01210	M01010	M00810
ExpressPlus PAGE Gel, 12 wells	M42012	M41212	M81612	M01212	M01012	M00812
ExpressPlus PAGE Gel, 15 wells	M42015	M41215	M81615	M01215	M01115	M00815

● Accessory reagents	cat.number	qty
5X Sample Buffer	MB01015	5 ml
MOPS Running Buffer Powder	M00138	5/PK
Transfer Buffer Powder	M00139	10/PK

Detailed presentation: [ExpressPlus PAGE Gels](#)

## Others available Electrophoresis Gels products <sup>446</sup>

[RunBlue Bis - Tris Protein precast gels](#): no more fear to break gels, with higher quality electrophoresis protein gel.

[CosmoPAGE precast gels](#): very consistent and compatible with standards electrophoresis systems.

Ask for iPAGE precast gels and electrophoresis system <sup>[BB198p]</sup>

See more products in the [Electrophoresis Gel Matrices Web Page](#)

## Electrophoresis Running reagents

### ■ Protein Molecular size markers<sup>447</sup>

Molecular Weight protein markers are used as standards in gel electrophoresis (PAGE) to determine the molecular size of analysed protein samples. These are often pre-stained for visualizing the electrophoresis running process and for convenient reading whatever the gel staining is (i.e. staining of glycosides (PAS) or phospho groups). Interchim Biosciences provide standard blue MW markers for routine/economic uses, and colored proteins that ease reading of multiple markers, as well a marker that include a control for blotting with ECL detection.

#### ● Protein MW markers for Electrophoresis

**BLUeye Prestained Protein Ladder (12bands-10-245KDa)** **FO9810, 500 µl (>100tests)**  
Ready-to-use MW protein markers (in loading buffer) with 2 colored reference bands and 10 blue bands [11Kda, 17KDa, 20KDa, 25KDa(Green), 35KDa, 48KDa, 63KDa, 75KDa(red), 100KDa, 135KDa, 180KDa, 245KDa]. [Technical sheet](#)

**Wide Range Molecular Weight standard (8 bands 14.4 – 212 kDa)** **BB7080 500 µl**  
Contains 6 protein bands of 212, 116, 97.4, 66.2, 45.0, 31.0, 21.4/19.7, 14.4 kDa. – recommended for 6-15% acrylamide gels. [Technical sheet](#)  
**High Range protein MW marker 31-3.5kDa** **553221, 200 µl** **553222, 800 µl**  
Contains 6 protein bands of 212, 116, 97.4, 66.2, 40.0 kDa. –recommended for 6-8% acrylamide gels [Technical sheet](#)  
**Low Range protein MW marker 31-3.5kDa** **587231, 200 µl**  
Contains 6 protein bands of 31, 20.4, 16.9, 14.4, 6.1, 3.5kDa. .

**Precise Molecular Weight standard (7 bands 15.0 – 150 kDa)** **N14020 200 µl**  
Contains 6 protein bands of 15, 25, 35, 50, 75, 100 and 150 kDa recombinant proteins, providing convenient intervals. In loading buffer. 800µg/ml. [Technical sheet](#)

**Colored™ MW markers proteins (19.5-213KDa)** **L771512, 500µl**  
8 colored MW markers: 213 kDa (orange minor), 144 kDa (orange major), 82 kDa (blue), 61 kDa (blue), 45 kDa (Green), 34 kDa (Violet), 26.5 kDa (Blue), 19.5 kDa (Green), [Technical sheet](#)

Further descriptions of these products and more MW products [here](#)<sup>!</sup>.

See also [on-line](#)<sup>!</sup>:

**Blueaqua Prestained Protein Ladder (10 - 170 kDa, 11 Bands)** **PM019-050, 500µl** **PM019-0500E, 5x500µl** **Pink Plus Prestained Protein Ladder (10-175 kDa, 3 Reference Bands: 10, 40 And 90 kDa)**  
[Technical sheet](#) **PM005-0500, 2x250µl** **PM005-0500E, 5x500µl**  
[Technical sheet](#)

A wide selection of prestained and unstained molecular weight standards for SDS-PAGE and Western Blot

**Smart Advanced Broad-Range Protein Standard** **M00441, 250 µl**  
**Smart Dual Color Pre-Stained Protein Standard** **M0044, 250 µl**  
**Smart Multi Color Pre-Stained Protein Standard** **M00443, 250 µl**  
**PAGE-MASTER Protein Standard (for SDS-PAGE)** **M00516, 500 µl**  
**PAGE-MASTER Protein Standard Plus** **MM1397-500, 500 µl**  
+ see below MW for WBlotting



**Blue protein Markers, High MW range (14.4-97.4 kD)** **67275A, 500 µl**  
Blue ready-to-use pre-stained protein molecular weight markers, 14.4/20.1/29/43/68/97.4kD. [Technical sheet](#)  
**Prestained Low molecular weight range (23.86-43 kD)** **82673A, 500 µl**  
Blue ready-to-use pre-stained protein molecular weight markers, 2.86/6.5/14.4/20.1/29/43kD. [Technical sheet](#)

**Pro-Stain Protein MW Markers, Blue/Violet stained (9-198 kD/9bands)** **MP2940, 250 µl**

Ready-to-use pre-stained proteins 9, 18.5, 26, 37.2, 46.2, 61.5, 90.5, 115, 198 kD, [Technical sheet](#)

**Pro-View Protein MW Markers, for Western-Blots (16~215 kD/8bands)** **1E7370, 250 µl**

recombinant proteins with 16, 25, 35, 50, 60, 100, 150 and 250kD MW. Bind IgGS for detection by you usual ImmunoStaining WB procedure. [Technical sheet](#)

**Protein molecular weight markers** **FQ2520**

Contains β-Galactosidase (116Ka), Phosphorylase b (97.4kDa), BSA (66.2KDa), Alcohol Deshydrogenase(28.5kDa), Carbonic anhydrase (28.5KDa), Myoglobin (18.4KDa), Lysozyme (14.0KDa)

## ● Protein MW markers with detection system - for Western-Blots

### WB-MASTER Protein Standard

**M00521 , 250 µl**

B-MASTER Protein Standard is designed for convenient protein identification in western blot. This standard consists of seven recombinant proteins with molecular weight of 20 kDa, 30 kDa, 40 kDa, 50 kDa, 60 kDa, 80 kDa and 120 kDa. Each of the proteins contains an IgG binding site that is able to bind to primary or secondary antibodies derived from a wide range of host species. The standard thus enables direct visualization of both the protein marker and users' samples on the same western blot membrane without any additional reagents.

The apparent molecular weights of its seven protein bands are 20 kDa, 30 kDa, 40 kDa, 50 kDa, 60 kDa, 80 kDa and 120 kDa.

Recommended loading volume: 2.5-10 µl per well, the loading volume of the marker should be optimized for different experiment conditions

### WB-MASTER Protein Marker for Fluorescent Western Blotting

**M00124, 100 Lanes**

This protein marker is designed for convenient protein band identification in fluorescent Western Blotting. It is a lyophilized mixture of five recombinant proteins that are able to bind to primary and/or secondary antibodies derived from a wide range of host species. It thus enables direct visualization of both the protein marker and users' samples on the same western blot membrane without any additional reagents.

The apparent molecular weights of its five protein bands are 22 kDa, 40 kDa, 60 kDa, 85 kDa and 120 kDa.

Recommended loading volume: 2.5-10 µl per well,

## ● Other

See more products in the [Electrophoresis MW markers Web Page](#) []

See also Molecular Weight Nucleic acids Markers in chapter 'Genomics'.

## ■ Electrophoresis buffers - ready-to use<sup>449</sup>

### ■ Electrophoresis buffer - components

**Ammonium Persulfate (APS), Biotech grade**

**UP306098**

CAS:[ 643-79-8]; MW: 228.2; Z; [Technical sheet](#)

**TEMED**

**UP15413D**

CAS:[ 110-18-9]; MW: 116.22; Z; [Technical sheet](#)

**Urea**

**UP031903**

CAS:[ 57-13-6]; MW: 60.1; Z, Xi; [Technical sheet](#)

### ■ Loading

#### \*Loading buffers - Ready to use

**Leammi sample buffer 3X**

**CL6200, 1ml**

**Gel Loading Buffer**

**Q69810, 250µL**

**Loading Buffer**

**FX6780, 50ml**

**FX6781, 100ml**

**Gel Loading Buffer 4x, with Bromophenol Blue**

**IU6490, 5ml**

**Loading Buffer 5X, with Orange G**

**Q70460, 6x250µL**

**Protein Gel Loading Buffer 2x, with Pyronin Y**

**BJ0310 , 5ml**

**Lane Marker Reducing Sample Buffer - Pink**

**39000, 5ml**

Formulation: Proprietary pink tracking dye in 0.3M Tris-HCl, 5% SDS, 50% glycerol, 100mM dithiothreitol (DTT)

**Lane Marker Non-Reducing Sample Buffer - Pink**

**39001, 5ml**

Formulation: Proprietary pink tracking dye in 0.3M Tris-HCl, 5% SDS, 50% glycerol

#### \*Loading buffers - Components (Tracking dyes, charge)

The most popular tracking dyes are Bromophenol Blue (BBP) and Xylenol Cyanol FF (Orange). Please inquire for pink, green colors.

**Bromophenol Blue**

**039850, 25g**

**039851, 50g**

**039852, 100g**

MW: 669.99; CAS:[115-39-9]

**Bromophenol Blue, Na salt**

**848110, 50 g**

**848111, 5100 g**

**Bromophenol Blue, Na salt, Proteomics grade**

**848117, 50g**

**848118, 100g**

MW: 691.97; CAS:[34725-61-6]

**Bromocresol Green**

**039820, 25g**

**039821, 50g**

MW: 698.04; CAS:[76-60-8]

**Bromocresol Green, Na salt**

**N12800, 25g**

**N12801, 50g**

MW: 720.02; CAS:[62625-32-5]

**Xylenol Cyanol FF**

**160214, 20g**

MW: 538.61; CAS:[2650-17-1]; Also called Acid Blue 147, xylene cyanole, C.I.42135. A tracking dye for gel electrophoresis monitoring

**Glycerol, Sterile Solution MB Grade(>99.5%)**

**047623, 1L**

**047624, 500mL**

**047625, 2.5L**

MW: 92.1; CAS:[56-81-5]; [Technical Sheet](#)

**Glycerol, Proteomics grade**

**04762K, 1L**

**04762L, 4L**

#### \*More product for loading sample in electrophoresis

See details and more [electrophoresis reagents](#) or inquire for other components.

See also the section 'biochemical for electrophoresis' and on line.



### ■ Buffers for other electrophoresis techniques

See buffers in sections '[Capillary electrophoresis](#)'.

### Others available Electrophoresis Buffers products <sup>449</sup>

See **Buffers for capillary electrophoresis** in the '[Capillary Electrophoresis](#)' section.

See more products in the [Electrophoresis Buffers Web Page](#) []

### Capillary electrophoresis <sup>449</sup> []

Search also in the [Capillary Electrophoresis Web Page](#) []

### Western-Blotting <sup>450</sup>

See more products in the [Electrophoresis/Blotting Web Page](#) []

## Protein gel Staining <sup>448</sup>

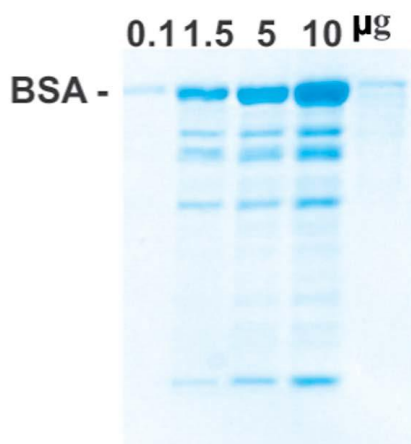
### ● Overview

Product	Method	Sensib.	Easy Time	Downstream applications	cat.#
<b>LavaPurple Protein Gel &amp; Blot stain</b> Unique!: the most sensitive available stain (50pg), flexible (gels & blots); fully reversible, more proteins identified by LC/MS, economic (9€/gel)!	Fluo Rev.	++++ 50pg	++ 1h30 (45min/blots)	Any +Blot	<b>67433A</b> , kit/20 minigels
<b>Lumitein Protein Gel stain</b> The simplest and very sensitive gel stain alternative to Rubis.	Fluo	+++ng	++++ 1hour	MS, Seq	<b>CJ5261</b> , 10mL 100X <b>CI8761</b> , 1L 1X
<b>ProLuma Protein Gel stain</b> Fast fluorescent stain	Fluo (not rev.)	++ 10-30ng	+++ 25min	MS, Seq	<b>CF8591</b> , 125mL/ 125 minigels
<b>SilverBullit Protein Gel stain</b> very sensitive & convenient silver stain, compatible with MS	Chrom.	+++ng	+++ 1hour	MS.	<b>T08860</b> , 1 kit (qsp 2.5L)
<b>CooBlue Protein Stain</b> rapid staining, facultative destaining, 20ng sensitivity	Chrom. (Rev.)	++ 20ng	+++ 1hour	almost any appl.(+electroelution)	<b>UPG4562A</b> , 500ml <b>(UPR2034A, 500mL)</b> <b>(UP47255A, 500mL)</b>
<b>ProSave™ Protein Gel stain</b> Save protein (no interactions); stain in 7min, reversible in 7min, Other standard stains are available as powders. See below.	Chrom. Rev.	++/+++	++ 5-10min	Any	<b>BP7121</b> , kit/20 minigels

### ■ CooBlue™ Protein Gel stains

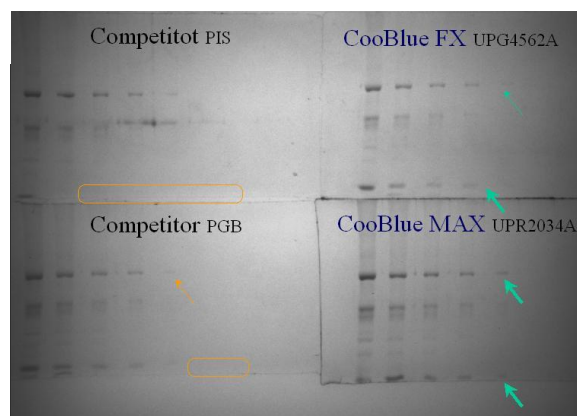
*Our quick and easiest coomassie protein gel stain: do not destain!*

- Hands-Off! Stain and read directly (no destaining)
- High Sensitivity, below 10-20 ng of Protein per Band
- Compatible with further analysis of gel (silver staining) or proteins (MS)
- Safe and environment friendly : No More Methanol nor Acetic Acid !



(UPR2034A) to yield a more 'muddy blue color that looks even better with some imaging systems.

CooBlue Instant Stain is a superior alternative to traditional Coomassie Blue staining procedures, based on a colloidal formulation. Environmentally friendly, this ready-to-use stain does not contain methanol and acetic acid and does not require hazardous solvents for destaining. The protein bands are directly visible during the staining process. water yields clear background, allowing optimal sensitivity. There is no need for multistep Coomassie stainings. The simple "hands-off" staining/destaining procedure saves valuable time and solvent waste in your laboratory



#### CooBlueFX Protein Gel stain

1 kit provides sufficient quantity of 2 solutions (a sensitizer and a developing) to stain 20-25 minigels.

**UPG4562A**, 500ml

**UPG4562B**, 4.5L

#### CooBlueMAX Protein Gel stain

1 kit provides sufficient quantity of 2 solutions (a sensitizer and a developing) to stain 20-25 minigels.

**UPR2034A**, 500ml

**UPR2034B**, 4.5L

#### CooBlue Native Protein Gel stain

1 kit provides sufficient quantity of 2 solutions (a sensitizer and a developing) to stain 20-25 minigels.

**UP47255A**, 500ml

**UP47255B**, 4.5L

#### Dispensing Pump

Fits to CooBlue containers of 4.5L, and deliver a 20ml dose by pressing a button.

**T34711**, 1u

## ■ Silver Bullit™ protein gel stain

### Silver Staining & Destaining Kit **M335, 1 Kit**

Contains one Silver BULLIT Staining kit, and one Silver Subtract Destaining Kit

### Silver Bullit™ - Silver Stain Kit **M227, 1Kit**

Kit includes (sufficient for 50 mini-gels): Silver Stain, 10X, 250 ml, Sensitizer, 10X, 250 ml, Developer, 5X, 250 ml x 2. 30min and 4H procedures. [Technical sheet](#)

- Ultra-sensitive protein detection with clear background
- Mass spectrometry compatible
- Liquid concentrates for convenient reagent preparation

### Silver Subtract™ - Silver Destaining Reagent **M322, 1 Kit**

Contains (sufficient for 12 mini-gels): Silver Subtract Solution A 25X (25 ml), Silver Subtract Solution B 25X (25 ml)

#### Description

The Silver Staining – Destaining Kit combines for convenience the Silver Bullit™ Silver Stain Kit and Silver Subtract™ Silver Destaining Reagent.

Proteins can be detected in polyacrylamide gels with high sensitivity and nearly undetectable background using Silver Bullit™ Silver Stain Kit. The kit's colorimetric staining procedure allows detection of subnanogram levels of protein, and is 100-fold more sensitive than Coomassie® Blue staining. This product is ideal for visualization of proteins present in trace levels on a gel. Fast staining procedure takes only 30min. The highest sensitivity procedure lasts 4Hr.

Gels stained with Silver Bullit™ or any other silver staining product can be completely destained with Silver Subtract™ Silver Destaining Reagent. It is an excellent kit for the removal of silver ions before re-staining with silver stain. Silver Subtract™ is also compatible with subsequent visualization of the gel with with fluorescent or chemiluminescent stains, or with chromogenic stains such as Coomassie® Blue. Partial destaining can also be achieved with less dilute reagents to remove high background, reduce staining of overloaded gels, or remove artifacts and uneven background. Gels re-stained after using Silver Subtract™ do not exhibit a decrease in band intensity or increase in background.

Also available: •other silver stains

### Silver Gel Stain

### CE1980, 20 tests

One kit is sufficient to stains 20 minigels. Sensitivity: 0.3ng BSA,2h-2h30 procedure. Compatible with MS. [Technical Sheet](#)

Contains Sensitizer (40ml), Stainer A(80ml) and B (250ml), Developer(2ml) and Developer enhancer(2ml), Destainer A(250ml) and B(250ml)

### Silver Stain MS Kit

### B19791, 20tests

Sensitivity: 1ng protein,1h20-40

•silver powders

### SILVER NITRATE

084961-0377, 25g

084962, 100g

084963, 500g

### SILVER NITRATE, Proteomics grade

08496Q,-M122, 25g

08496R, 100g

08496S, 500g

UN: 1483

### SILVER NITRATE, MolBio grade

151681, 25g

151682, 100g

UN: 1483 99% pure

## ■ One-Step™ Protein Gel Stains

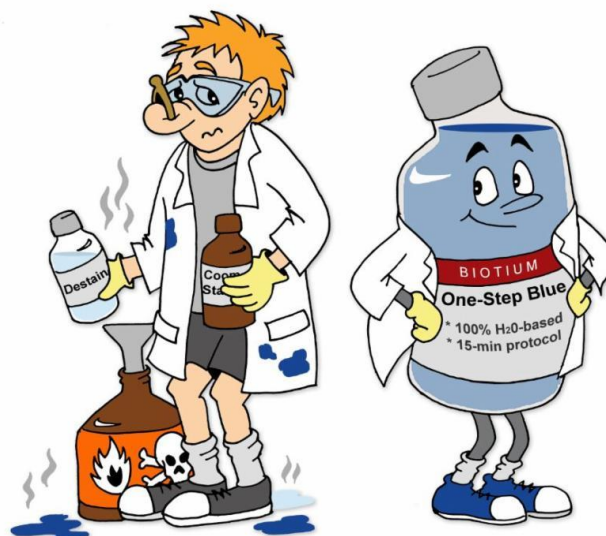
Ready-to-use, one step protein gel staining solutions!

- Low-cost, rapid, non-toxic protein gel stains.
- Alternative to tedious Coomassie staining.
- No fixing or washing required.
- Entirely aqueous-based for easy disposal.
- Fully compatible with mass spectrometry and Edman-based sequencing.

One-Step Blue™ stained proteins are detected by visible blue staining or by near-infrared fluorescence.

One-Step Lumitein™ is a sensitive red fluorescent gel stain, for protein detection using a UV transilluminator or laser gel scanner.

One-Step Lumitein™ UV gel staining requires only a single 5-30 minute staining step without fixation.



## ■ ProLuma™ protein gel stain

*Fast fluorescent staining of proteins in gels...*

### ■ Simple & Fast procedure

Staining consists of a simple 20 minute incubation with no need for washing and destaining steps, followed by a UV transillumination for 3-5 minutes. Since the unbound probe does not fluoresce, the protein bands appear bright white against a dark background.

### ■ Sensitive

The sensitivity is similar to Coomassie® Blue although the staining intensity of individual proteins will vary. Membrane and hydrophobic proteins tend to stain with greater intensity while some proteins such as BSA have reduced intensity.

### ■ Compatible with existing instruments, and with downstream applications

Gels can be documented with an image analyzer or Polaroid® photography.

Compatible with Western Blotting and 2-D electrophoresis – but may impact downstream amino acid analysis such as MALDI or sequencing.

### ■ Economical

Down 0.2€/minigel !

**ProLuma™ protein gel stain, 20X**

**CF8590, 10mL**

**CF8591, 125mL**

Contains 20X ProLuma solution (to dilute with 50%MeOH 10% Acetic acid), sufficient to stain ca 125 minigels

■ **Lumitein™ protein gel stain** *Highly sensitive, super speed*

■ **Highly Sensitive**

At least as sensitive as silver stain by detecting as little as 1 ng or less protein.

■ **Extremely Simple & Fast Staining**

Fixation and staining is a single combined step. Use the 30-min Rapid Protocol for excellent result, or the 90-min Basic Protocol for the ultimate sensitivity; no overstaining with longer staining time.

■ **Excellent Compatibility with Existing Instruments**

Can be used with either a simple UV-box (designed for DNA gel viewing), a Dark Reader, or a high-end laser scanner (See Figure 2 for spectra).

■ **Wide Linear Detection Range**

At least three orders of magnitude.

■ **Perfectly Compatible with Downstream Analysis**

Compatible with MS and sequencing.

■ **Economical**

The 100X concentrated solution reduce manufacturing and shipping costs

■ **Stable** at room temperature for at least 1 year (both the 100X and the 1X solutions)

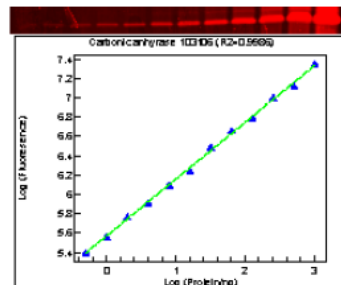
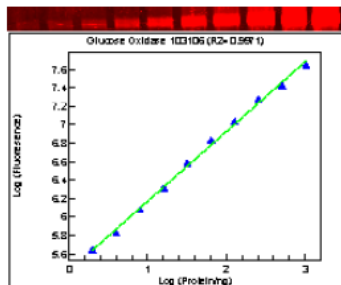
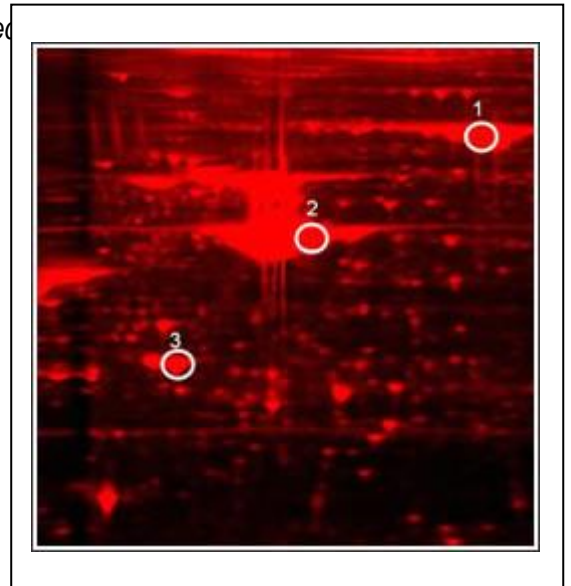
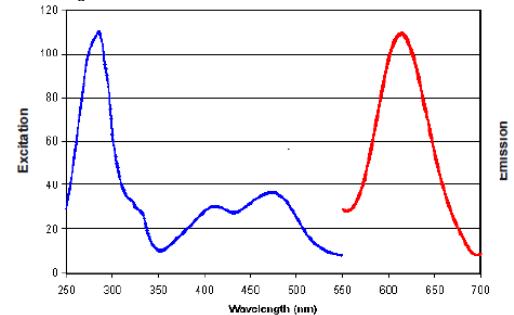


Figure: Linear detection range of Lumitein for 4 different proteins. Various amounts of each protein were separated via SDS-PAGE. Gel images were taken by GE Typhoon Trio gel scanner using 532 nm excitation and 610BP30 emission filter. The bands were quantitated using ImageQuant volume analysis. Log luminescence intensity was plotted against log protein amount per band for each protein.

-UV excitation maximum at around ~280 nm  
 -broad visible excitation centered around ~450 nm  
 -emits bright red fluorescence at around ~610 nm.



**Lumitein Protein Gel Stain, 100X**  
**Lumitein Protein Gel Stain, 1X**

**CJ5260, 2mL 100X**  
**CI8760, 200 mL 1X**

**CJ5261; 10 mL 100X**  
**CI8761, 1L 1X**

**CJ5262, 50 mL 100X**  
**CI8762, 5x 1L**

## ■ LavaPurple™ protein gel & blot stain

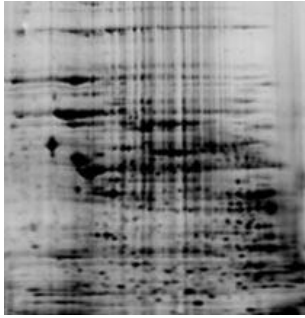
*The most versatile and sensitive protein stain for gels AND blots,  
with superior results for proteomics requirements*

- **Ultimate Sensitivity:** detect as low as 50pg
- Low protein to protein variability – excellent for glycoproteins
- High signal to noise
- **Safer** to use & simpler to dispose of (biodegradable - not heavy metals) \*
- **Simple and quick:** 1h30 (gels) or <45min (blots)
- Suited to automated high throughput systems

### Gel staining applications

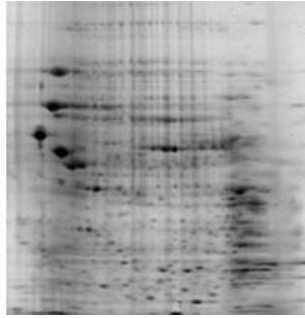
- Linear quantitation over 4 orders of magnitude
- More compatible with sequencing or functional analysis, and mass spectrometry \*:
- More real protein spots / less false positives on 2D gels
- Staining can be reversed easily
- Multiplex compatible with DIGE (Cy™), Phosphoprotein (PQ), silver and Coomassie staining

No heavy metals unlike Rubis and silver stains.



**Total Protein Stain : 1076 spots**

Rat microsomal proteins focused in 17 cm pH 3 – 10 IPG strips and separated in large format 2D gels.

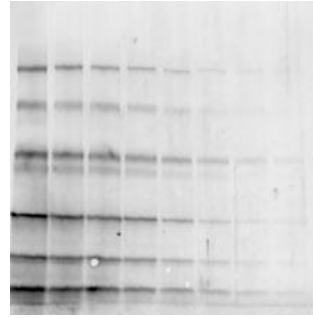


**Rubys stain: 877 spots**

### Blot staining applications

- 16-Fold more sensitive than Rubys stains
- Works for all blots (WesternB., 2D, IEF)
- Low background and no speckling
- Compatible with MS\*\* and Edman-based sequencing
- Compatible with functional analysis and Ab staining

\*\*More compatible than competitor products.: see figure below



**Total Protein Stain :**

Low molecular weight markers two-fold diluted from approximately 128–1 ng blotted to Hybond-P (PVDF) and stained with LavaPurple Total Protein Stain.



**Rubys stain:**

+



## ■ Glycoprotein staining

### Glycoprotein Staining Kit 903470, 1 kit

Green bands indicate specific, in-gel detection of phosphorylated proteins.

For staining glycosylated proteins in polyacrylamide gels using the periodic acid-Schiff (PAS) method.

Kit contains sufficient for: 10 mini gels (SDS-PAGE): 250mL reagent (1 bottlesof liquid reagent + 2 dry), plus positive and negative control proteins (1mg each)

Shipped Separately: Oxidation Reagent (2.5g powder to make 250mL), Reduction Reagent (1.25g powder to make 250mL), Positive Control (Horseradish Peroxidase, 1mg), Negative Control (Soybean Trypsin Inhibitor, 1mg)

## ■ Phosphoprotein staining

### Phosphoprotein Staining Kit Q57730, 1 kit

Green bands indicate specific, in-gel detection of phosphorylated proteins.

Staining is achieved by first hydrolyzing the phosphoprotein phosphoester linkage using 0.5 N NaOH in the presence of calcium ions. The gel containing the newly formed insoluble calcium phosphate is then treated with ammonium molybdate in dilute nitric acid. The resultant insoluble nitrophospho-molybdate complex is finally stained with the basic dye, Methyl Green Solution. The reagents in this kit hydrolyze the phosphoester linkage of phosphoserine and phosphothreonine. Phosphotyrosine is not hydrolyzed and cannot be detected with this kit.

## ■ His Tagged gel detection

Fluorescent detection specific for histidine-tagged proteins directly on the gel

Detects down to 5.7 picomoles histidine-tagged protein

Protein can be transferred after staining allowing Western-based detection, if necessary

Stained gel can be further stained by CooBLue Coomassie or ProSave stains for a total protein profile determination.

### 6xHis Protein Tag Stain Kit

Sufficient reagent to stain 10 PAGE mini-gels. Kit contains: 6xHis Protein Tag Stain (500 ml), 6xHis Protein Tag Developer (500 ml), Positive Control Lysate (0.5 ml), Negative Control Lysate (0.5 ml)

### 6xHis Protein Tag Stain Reagent Set

Kit contains: 6xHis Protein Tag Stain (500 ml), 6xHis Protein Tag Developer (500 ml)

Sufficient for 50-100 mini-gel lanes. Kit contains: Positive Control Lysate (0.5 ml), Negative Control Lysate (0.5 ml)

### Q74710-24575, 1 kit

### Q74710-24570, 1 Kit

### 24572, 1 Kit

## ■ Biochemicals for protein gel staining<sup>448</sup>

### Alcian Blue

For detecting glycoproteins on nitrocellulose and in PAGE gels.

Soluble in water ; MW: 1298-1408 ;  $\lambda_{abs}$ .: 615-670 nm

Alcian Blue 8GX, high purity	N12351 100 mg
Alcian Blue 8GX, Ultrapure	N1235A 100 mg

### Coomassie® Brilliant Blue R-250

For protein staining after electrophoretic separations (SDS-PAGE, Agarose, PVDF).

.More water soluble and more sensitive than the G-250 stain.

Soluble in water ; MW: 825.99 ;  $\lambda_{abs}$ .: 585 nm

Coomassie® Brilliant Blue R-250, Biotech grade	115252, 5g	115253, 10g	115254, 25g
Coomassie Brilliant Blue R-250 Proteomics grade	115252, 5 g	115253, 25 g	115254, 50 g

### Coomassie® Brilliant Blue G-250

Soluble in water. MW:854.04 610 nm

Protein staining after electrophoretic separations (SDS-PAGE, Agarose, PVDF).

.Used to detect protein concentration by Bradford Method.

Coomassie® Brilliant Blue G-250, Biotech grade	077582, 5 g	077583, 25 g	077584, 50 g
Coomassie® Brilliant Blue G-250, Proteomics grade	11524A, 10 g	11524B, 25 g	11524C, 50 g

### Colloidal Coomassie Blue Protein Stain-Safe Stain

N1516A, 1L

### Congo Red

General protein stain for SDS-PAGE and agarose gels; also color stain for early diagnosis of amyloid deposition.

Soluble in water. MW:696.67 ;  $\lambda_{abs}$ .: 610 nm

Congo Red	N12511 1 g	N12513 100 g
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### Eosin Y

Reversibly stain peptides and proteins following SDS-PAGE; used for protein recovering and MS characterization.

Soluble in DMSO/DMF ; MW : 691.88 ;  $\lambda_{abs}$ .: 517 nm

Eosin Y	12504A 1 g	12504C 100 g
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### Fast Green FCF

General protein stain for native PAGE, SDS-PAGE and particularly useful for IEF gels.

Soluble in DMSO/DMF ; MW: 808.86 ;  $\lambda_{abs}$ .: 622nm

Fast Green FCF, Ultrapure	648891 1 g	648891 50 g	648891 100 g
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### Hydrazide conjugated labels

Hydrazide conjugated labels (biotin, fluorophores,...) can be used to label glycoproteins via periodate oxidation/reductive amination. Please see corresponding description in section "Labeling".

Biotin-PEO-Hydrazine	BJ008A	See the ' <a href="#">Crosslinking</a> ' catalogue
SulfoRhodamine101 Hydrazid	FP-AY7720	
FluoProbes®547-Hydrazide	FP-BP5530	
FTSC	FP-47552A	

### Nile red

General protein stain for native PAGE, SDS-PAGE and IEF gels, direct blotting, sequencing.

Fluorescent polarity probe for protein structure and configuration.

Soluble in DMSO/DMF ; MW : 318.37 ;  $\lambda_{exc}/\lambda_{em}$ .: 552/636 nm

.Nile red

### .Oil Red O

Lipid/lipoprotein stain on cellulose acetate

Soluble in DMSO/DMF ; MW : 408.51 ;  $\lambda_{exc}$  : 518 nm

Oil Red O (Sudan Red 5B) .	N13001 100 g
Oil Red O	N13002 250 g
Oil Red O - Ultrapure	N13005 1 g
Oil Red O - Solution	AQ3690 100 tests

### .Ponceau S

.Rapid reversible protein stain on nitrocellulose, cellulose acetate and PVDF membranes.

Soluble in water ; MW : 760.58 ;  $\lambda_{abs}$ .: 520 nm

Ponceau S	050268 50 g	050269 100 g	05026A 1 g
Ponceau S - Ultrapure	200785 50 ml		
Ponceau S - Concentrate	200786 500 ml		

### .Silver Nitrate

Silver Nitrate, Proteomics grade 08496Q, 25g 08496R, 100g 08496S, 500g

MW: 169.87; CAS:[7761-88-8]. Widely used for electrophoresis gel staining

See more description and Silver Nitrate items in

Please see the '[Cell Stains](#)' catalogue for descriptions of most of the following products (dyes). ■ **Crack free**



Crack-Free kit is based on a unique solution and cellophane sheets, which together regulate the rate of water released from the gel to ensure crack-free gel of up to 20% polyacrylamide content. Crack free allows drying polyacrylamide gels without cracks for fluorography, densitometry, autoradiography and permanent storage.

- Suits native and denatured (SDS or urea) 4-20 % PAGE gels

#### Crack-Free Kit

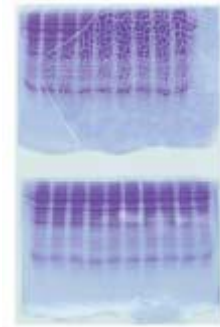
Contains	Reagent
	Cellophane sheets (20 x 20 cm)
	Number of gels (midi [20 x 20 cm] / mini [10 x 10 cm])

#### U50450 -1kit

500 ml 4X
20u
20/40u

#### U50451 -1kit

500 ml (1X)
10u
5/10u



## Elimination of Staining solutions

### Uptima DY-capt destaining bags

DY-capt destaining bags provide a fast yet efficient and cost-effective method to de-stain gels. The special absorbant mixture efficiently absorbs on the bag the dye molecules that are leaching from the stained gel in the destaining buffer. With protein gels for example, it absorbs the Coomassie Blue from the destaining solution, leaving only the protein bands stained in gel. Hence,

- destaining is speeded up and there is no need to change the destaining solution: you save destaining solution!
- destaining solutions can be re-used for next gel stainings: you save destaining solution!

Additionally, DY-capt destaining bags are biodegradable and require no special disposal unless contaminated with radiolabeled or other hazardous substances. With nucleic acid gels for example, they safely remove dangerous dyes such as Ethidium Bromide from solutions. Hence,

- destaining solution does not need to be disposed off according costly regulated ways
- concentrate toxic material can be disposed off more economically (incineration or other mean according local rules).

- High binding capacity (>5mg Ethidium Bromide by bag)
- Made of material that is easily disposed off in incinerated trash
- convenient packaging
- minimize the exposure of research personnel to toxic material.

#### DY-Capt Destaining bags

988421, 25u

Each bag extracts up to 5 mg of Ethidium Bromide from solution. [Technical sheet](#)

Also available

COZAP PADS, 76x76x2mm

746800, 25u

746801, 100u

746801B, bulk

COZAP PADS, 38x76x2mm

746802, 100u

746803, 200u

## Electrophoresis apparatus

### GEBAGel Electrophoresis System

*An economic, easy-to-use horizontal electrophoresis system, with resolute and cost-effective pre-cast gels*

**User-friendly** protein electrophoresis system.

**Easy-to-use:** horizontal apparatus (deposit sample with standard pipette tips).

**No special loading tips needed**, agarose standard-loading tips used.

**No leakage** of running buffer from inner tank to the outer tank.

**Running buffer saving**, use 150 ml only, with the same standard Tris-glycine running buffer even for peptides

**High resolution:** sharper bands provide clear accurate results.

**Multiple applications:** proteins, peptides \*

**Cost-effective & 12-months shelf-life guarantee.**



See [description here](#) of this genius GeBaGel electrophoresis system with the pre-GebaGel precast gels (BI9710). Each researchers can now have his own electrophoresis cuve !

\* Also available:

iPAGE Gel Electrophoresis System

See [PH-BB198p](#)

### ■ eStain™ Protein Staining System

Making protein gel staining faster, easier, cleaner and safer

- **Faster** - complete protein gel staining in 7 minutes or less
- **Easier** - hit button and run
- **Cleaner** - no solutions and buffers prepared
- **Safer** - unique formulation without methanol

A unique electric system combined with eStain™ Protein Staining Pad containing proprietary electrode buffers with Coomassie blue dye allows for very fast (7min) procedure. Suiting various types of mini gels, including Tris-Glycine, Bis-Tris, Tris-Acetate and Tris-Tricine gels, the system is more convenient and saves 1h30 and up 6hours compared the SimplyBlue and BioSafe stains, and provides more consistant protein gel staining results.

**eStain™ Protein Staining Device**

**L02010, 1 unit** See [full description \[PH-BB205g\]](#)

**eStain™ Protein Staining Pads (R-250, 20-pak)**

**L02011, 1 box**

**eStain™ Protein Staining Pads (G-250, 20-pak)**

**L02012, 1 box**

**eStain™ Graphite Electrode (10mm, 1-pak)**

**L02013, 1 unit**

**eStain™ Graphite Electrode (11mm, 1-pak)**

**L02014, 1 unit**

**eStain™ Graphite Electrode (12mm, 1-pak)**

**L02015, 1 unit**

### Nbx instruments (Hoeffer) et accessoires ajoutables cher Harvard/Y55 (accord distrib 201505)

Faire liste/sélectionner cuves + indiquer consommable courant (plaques verre)

680603 New 2016,71 SLAB GEL DRYER SYSTEM 50x40, COMPLETE

+autres à reporter / Blotting:

680592 New 1177,99 SEMI-DRY BLOTTING SYSTEM 10x10cm

683761 New 1143,68 SEMI-DRY BLOTTING SYSTEM 20x20cm

680809 New 1982,48 VACUUM BLOTTER 115VAC 60 hz 15

683128 New 279,58 CAPILLARY BLOTTING UNIT 28X26

## Capillary electrophoresis

### A.C.E.™ Buffer and reagents

See the genomics & MolecularBiology catalog.

+

## Protein Sample preparation for electrophoresis

### ■ Protein preparation from complex samples

**Extraction reagent and kits** are provided for easy extraction of proteins from complex samples (cells suspension or tissues).

See the section 'Extraction/Purification' for our large range of biochemicals –detergents, additives- ready-to-use buffers, extraction kits and purification techniques. Following are just some examples, and complementary product dedicated to 2D-electrophoresis.

#### Acid Labile Surfactants and Kits

**see section 'Extraction/detergents'**

Unique "smart surfactants" that are acid cleavable so once their work is completed, can be quickly and efficiently degraded by acidifying the sample solution.

#### Cell Protein Extraction Kits

**see section 'Extraction/detergents'**

Total Protein Cell Lysis Buffer	DZ7320, 10ml (20 extr.)
Cytoplasmic/nuclear Protein Enrichment Kit	884930, 1 Kit (20 extr.)
Mitochondrial Protein isolation Buffer	FN1202, 30ml (20 extr.)
ProteaPrep Cell Lysis Kit, for bacterial and mammalian	DO4440, 50ml
TrioMol Isolation Reagent (Protein/RNA/DNA)	QZ9950, 100 ml
Yeast protein extraction reagent	821001, 200ml
Inclusion Body solubilization reagent	922830, 100ml

### ■ Sample preparation kits for 2D-electrophoresis:

#### 2D sample preparation kit for insoluble proteins

rapidly remove salts, buffers and other small ionic contaminants from proteins that are more difficult to solubilize, including cell extracts containing larger and/or more hydrophobic proteins, proteins that tend to aggregate, and nuclear proteins for 2-D gel electrophoresis, maintaining protein solubility and improving recovery.

#### 2D sample preparation kit for soluble proteins

rapidly remove salts, buffers and other small ionic contaminants from whole cell and tissue extracts as well as for fractionated proteins in which the proteins of interest are predominantly hydrophilic in preparation for 2-D gel electrophoresis, maintaining protein solubility and improving recovery.

## Extraction of proteins from electrophoresis gels

**Electroelution** is an efficient to desalt, remove electrophoresis buffer or other purification buffers from nucleic acids, especially for small size DNA and RNAs. This can be achieved using the GebaFlex dialysis devices, or the Electroprep/FastDialyzer system, using your usual electric power supply.

See also the section 'Extraction/Purification' section.

**GebaGel Extraction kits (electroélution)** **see in the 'Dialysis' section.**  
Device and buffers to perform electroelution in your usual horizontal electrophoresis tank.

**ElectroPrep Electroelution SYSTEM** **see the [presentation here](#)**<sup>[BB114f]</sup>  
Convenient electroelution system for 10µl – 10ml samples using the FastDialyzer devices and your standard electric power supply.

**GPR 100 Electroelution SYSTEM** **Inquire**  
reduces the number of handling steps, resulting in higher sample yield with excellent reproducibility.

### • Related and accessory reagents for electroelution

**Precipitation reagent (TCA)** **BI2941, 20x21ml**  
A reagent to precipitate proteins by the TriChloroacetic Method. Included in the electroelution method using GeBFlex devices. [[GegaFlex Tech Sheet](#)]

**Precipitation reagent (KAc)** **BI2943, 20x3ml**  
A reagent to precipitate proteins. Included in the electroelution method using GeBaFlex devices. [[GegaFlex Tech Sheet](#)]

**CYCLO-PURE, Gel Extraction Kit** **N15171**  
Cyclo-Pure Agarose Gel Extraction Kit is a fast, spin column-based kit for the quick isolation of DNA fragments (40 bp - 100 kb) from agarose slices. In just 10 minutes, ultra-pure DNA can be extracted that is ready-to-use in restriction enzyme digestion, labeling, ligation, transformation, in vitro transcription and sequencing protocols. All reagents are room temperature stable. Kit includes: Binding buffer, 40 ml, Wash Buffer, 50 ml, Spin Columns, 50, and Collection Tubes, 50. Contains sufficient material for 50 isolations. Compatible with standard agarose gels in TAE or TBE buffer HTS procedure increases productivity. [[Technical Sheet](#)]

**GPR Electroelution Buffer (AALS buffer)** **POA.GPR-020, 25mL**  
Use a unique acid-labile detergent.

## Other Electrophoresis products <sup>[427]</sup>

See also [Electrophoresis Web Page](#) []