

**VWR** 

1.800.932.5000

[vwr.com](http://vwr.com)



# Electrophoresis



# GEL PREPARATION

- Everything needed to prepare your own gels
- Huge savings over commercial premade gels

## • Acrylamide/ Bisacrylamide

- Electrophoresis grade acrylamide and bisacrylamide powders
- Acrylamide/Bisacrylamide solutions are available at the most common ratios (37.5:1 or 29:1)
- Acrylamide/Bisacrylamide powders ready to reconstitute dry powder blends are accurately pre-blended to produce a 40% (w/v) stock solutions

## • SDS

- Powder or premade solutions for added convenience

## • Ammonium persulfate (APS)

- The catalyst for the polymerization of polyacrylamide gels. APS is available as a ready to use tablets or as a powder.

## • TEMED

- Polymerization reagent of polyacrylamide gels

Cat. No.	Description	Size
95029-560	Acrylamide Powder	100g
95043-464	Acrylamide Solution, 40%	500ml
95029-564	Bis (N,N'-methylenebisacrylamide) Powder	50g
95043-466	Bis (N,N'-methylenebisacrylamide) Solution, 2%	500ml
95043-452	Acrylamide/ Bisacrylamide (37.5:1); 40% Solution	500ml
95043-456	Acrylamide/ Bisacrylamide (37.5:1); Premixed powder	200g
95043-458	Acrylamide/ Bisacrylamide (29:1); 40% Solution	500ml
95043-462	Acrylamide/ Bisacrylamide (29:1); Premixed powder	200g
82023-052	SDS	100g
95029-302	SDS	500g
82021-474	SDS, 10% Solution	100ml
89167-706	SDS, 20% Solution	500ml
95029-562	Ammonium Persulfate Powder	100g
95043-468	Ammonium Persulfate, 150mg tablets	100
71003-484	TEMED	100ml

# RUNNING BUFFERS

- Large selection
- Concentrated formulations

## • For SDS PAGE

- Electrophoresis grade acrylamide and bisacrylamide powders
- **SDS-PAGE Sample Loading Buffer [2X]: 0.2M Tris, 10% Glycerol, 4% SDS, 0.01% Bromophenol Blue**
- **SDS PAGE Running Buffer [10X]: 0.24M Tris, 1.92M Glycine, 1% SDS**

## • For Native Gel Electrophoresis

- **Native Sample Loading Buffer [2X]: 0.2M Tris, 10% Glycerol, 0.01% Bromophenol Blue**
- **Tris Glycine Native Gel Running Buffer [10X]: 0.24M Tris, 1.92M Glycine**

## • For Tris Tricine Gel Electrophoresis

- **Tricine Sample Buffer [2X]: 0.2M Tris, 2% SDS, 40% Glycerol, 0.04% Coomassie Blue, pH 6.8**
- **Tris-Tricine [10X]: 1M Tris, 1M Tricine, pH 8.3**
- **Tris-Tricine-SDS [10X]: 1M Tris, 1M Tricine, 1% SDS, pH 8.3**

## • For Bis Tris Gel Electrophoresis

- **MES SDS Running Buffer [10X]: 0.5M MES, 0.5M Tris, 1% SDS, 8mM EDTA, pH 7.25**
- **MOPS SDS Running Buffer [20X]: 1M MOPS, 1M Tris, 20.5mM EDTA, 2% SDS**

## • For Isoelectric Focusing (IEF)

- **IEF Anode Buffer [10X]: 70mM Phosphoric Acid**
- **IEF Cathode Buffer (pH3-10) [10X]: 0.2M Lysine, 0.2M Arginine**
- **IEF Cathode Buffer (pH3-7) [10X]: 0.4M Lysine**

Cat. No.	Description	Size
82021-242	SDS-PAGE Sample Loading Buffer [2X]	2.5ml
82021-250	SDS-PAGE Running Buffer [10X]	1L
82021-252	SDS-PAGE Running Buffer [10X]	1gal
95029-226	Native Sample Loading Buffer [2X]	2.5ml
95029-224	Tris Glycine Native Gel Running Buffer [10X]	1L
95029-254	Tricine Sample Buffer [2X]	30ml
95029-262	Tris-Tricine [10X]	1L
95029-264	Tris-Tricine-SDS [10X]	1L
95043-524	MES SDS running buffer [10X]	500ml
95043-526	MOPS SDS Running Buffer [20X]	500ml
95029-272	IEF Anode Buffer [10X]	250ml
95029-274	IEF Cathode Buffer (pH3-10) [10X]	250ml
95029-276	IEF Cathode Buffer (pH3-7) [10X]	250ml

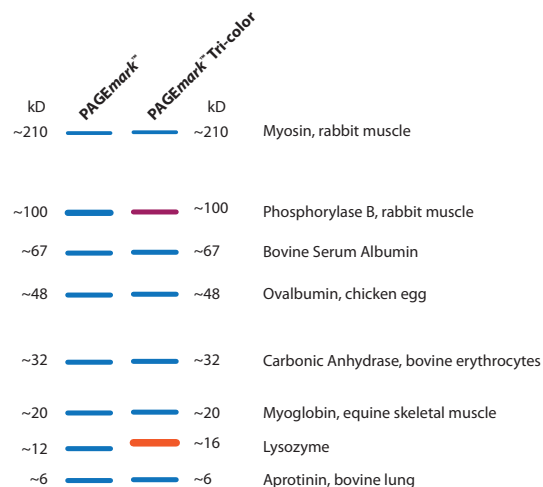
# PROTEIN LADDERS

## PAGEmark™ Protein Ladder

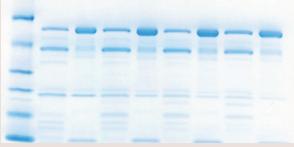

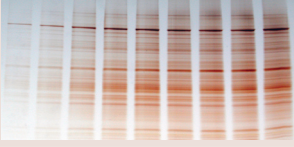

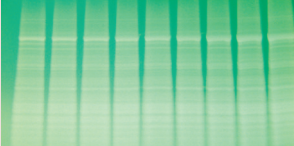
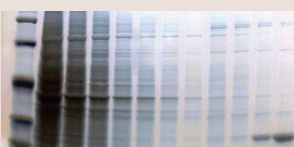

### Prestained, wide range ladder

- Protein markers for protein electrophoresis
- Wide range protein markers (~6 to >210kDa)
- Ready-to-use
- Single-use format available
- Blue or three colored prestained markers
- Lot specific molecular weights for greater accuracy

Cat. No.	Description	Size
89167-754	PAGEmark™ Tri-color	100 loads
89167-756	PAGEmark™	100 loads
89167-758	OneQuant™ PAGEmark™	40 loads
89167-760	OneQuant™ PAGEmark™ Tri-color	40 loads



# PROTEIN GEL STAINS

Product Name		Sensitivity [BSA] (ng)	Staining Time (min)	Application Comments	Cat. No.	Size
<b>LabSafe GEL Blue™</b>		4-8	3-60	<ul style="list-style-type: none"> <li>Improved Coomassie based stain</li> <li>Sensitive and rapid</li> <li>Mass spectrometry compatible</li> <li>No destaining required</li> <li>Native, denaturing, IEF &amp; 2D gels</li> </ul>	82021-412 82021-414	1 liter 1 gallon
<b>RAPIDstain™</b>		4-8	5-60	<ul style="list-style-type: none"> <li>Improved Coomassie based stain</li> <li>No destaining required</li> <li>Native, denaturing, IEF &amp; 2D gels</li> </ul>	82021-398 82021-400	1 liter 1 gallon
<b>FASTsilver™</b>		0.5-1.0	60-90	<ul style="list-style-type: none"> <li>Stains proteins and nucleic acids</li> <li>Native, denaturing, IEF &amp; 2D gels</li> </ul>	82021-392	25 mini gels
<b>FOCUS FASTsilver™</b>		0.5-1.0	60-90	<ul style="list-style-type: none"> <li>Mass Spectrometry compatible</li> <li>Allows proteolytic digestion</li> <li>For complete peptide extraction</li> <li>Native, denaturing, IEF &amp; 2D gels</li> </ul>	82021-376	25 mini gels
<b>Reversible Copper Stain™</b>		0.1-0.5	5-10	<ul style="list-style-type: none"> <li>Reversible</li> <li>Compatible with subsequent applications, including elution and transfers.</li> <li>Not compatible with native gels or gels containing tricine or glycine</li> </ul>	82021-402	25 mini gels
<b>Reversible Zinc Stain™</b>		0.1-0.5	10-20	<ul style="list-style-type: none"> <li>Reversible</li> <li>Stains glycoproteins, phosphoproteins &amp; other problematic proteins</li> <li>Compatible with subsequent applications, including elution and transfers</li> <li>Native and SDS denatured gels and gels containing glycine and tricine</li> </ul>	82021-408	25 mini gels
<b>Glycoprotein Staining Kit</b>		0.5-1.0	180	<ul style="list-style-type: none"> <li>Specific glycosylated protein staining with optional non-glycosylated protein staining</li> <li>Two stains in one kit</li> <li>Improved detection of glycoproteins</li> <li>Nanogram level sensitivity</li> <li>Stable periodate/ Schiff staining</li> </ul>	82023-286	10 mini gels

## 2D SPECIFIC REAGENTS

- **Agarose Sealing Solution for sealing IPG strips**
- **Equilibration Buffer for IPG Strips.** Add an appropriate volume of the supplied rehydration buffer to the dry, ready-to-use, urea based equilibration buffer.
- **Proteomic Grade Water**
- **Proteomic Protein Controls**  
Protein preparations specifically prepared for standardizing electrophoresis methods and protocols. A control set containing one 2mg vial of mammalian, E. coli, yeast and plant proteins is also offered.

Cat. No.	Description	Size
82021-368	Agarose Sealing Solution	50ml
82021-364	Equilibration Buffer for IPG Strips	For 50ml
82021-370	Proteomic Grade Water	1L
82022-046	Proteomic Protein Control, Yeast	2 x 2mg
82022-048	Proteomic Protein Control, Animal cells	2 x 2mg
82022-050	Proteomic Protein Control, E. coli	2 x 2mg
82022-052	Proteomic Protein Control, Plant	2 x 2mg
82022-054	Proteomic Protein Control Set	4 x 2mg

# ELECTROPHORESIS CLEAN UP: 1D & 2D

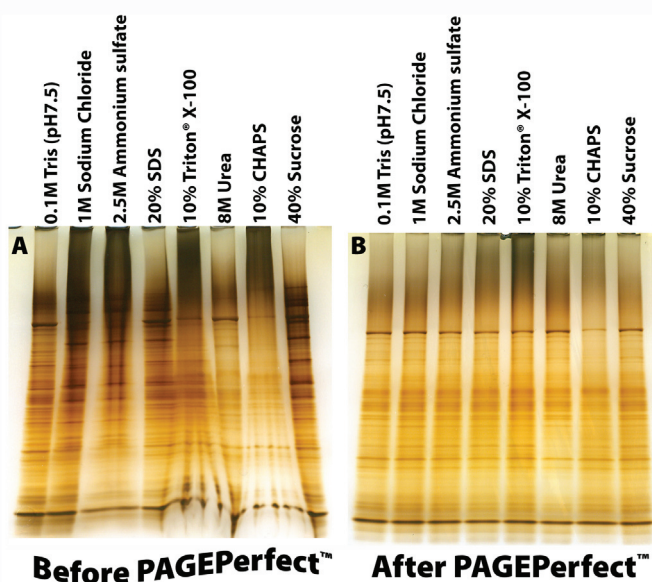
## PAGE-Perfect™

### Improved resolution & gel quality

The presence of interfering agents, such as salts, acids, bases and detergents, result in band distortion and poor protein resolution. As a result, SDS-PAGE gels are hard to analyze and lack reproducibility.

PAGE-Perfect™ is a simple, two-step method for concentrating, cleaning and preparing protein solutions for running publication quality gels.

- **Removes electrophoresis interfering agents, including detergents, reducing agents, chaotropes, salts & sugars**
- **Concentrates & cleans protein samples**
- **Increase gel quality and reproducibility**
- **Protein recovery >99%**



Analysis of mouse liver lysate before and after treatment with PAGE-Perfect™. A. 10µg mouse liver lysates, in the presence of various interfering agents, were loaded onto a SDS polyacrylamide gel. B. 10µg mouse liver lysates, in the presence of various interfering agents, were treated with PAGE-Perfect™ and then loaded onto a SDS polyacrylamide gel. Both gels were stained with FASTsilver™ protein.

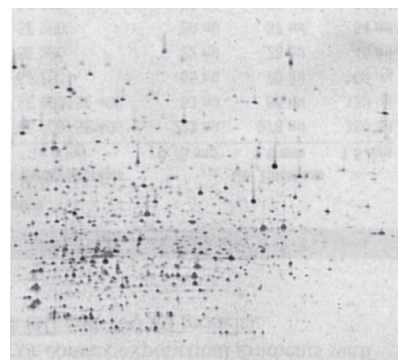
Cat. No.	Description	Size
82021-272	PAGE-Perfect™	50 preps
95057-536	PAGE-Perfect™	5 preps

## Perfect-FOCUS™

### Improved spot resolution

Designed to clean and concentrate protein samples that give poor protein spot resolution during 2D electrophoresis. Protein samples containing interfering agents, including ionic detergents, metal ions, substrates, substrate analogs, inhibitors, and other charged molecules, routinely result in smeared or low resolution gels.

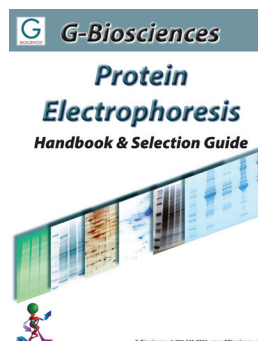
- **Removes interfering agents from protein solutions**
- **Conductivity lower than 50µS after treatment**
- **Samples free from non-protein agents**
- **Kit suitable for 50 x 1-100µl protein solutions**




Treatment of protein samples with Perfect-FOCUS™ results in streak free, high spot resolution gels.

Cat. No.	Description	Size
82021-274	Perfect-FOCUS™	50 preps
95029-160	Perfect-FOCUS™	6 preps

For more details, download the *Protein Electrophoresis Handbook at VWR.com*





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