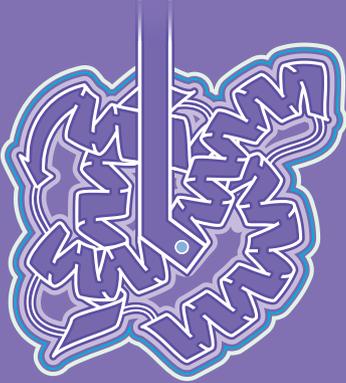


Speed Past the Twists and Turns in Protein Research

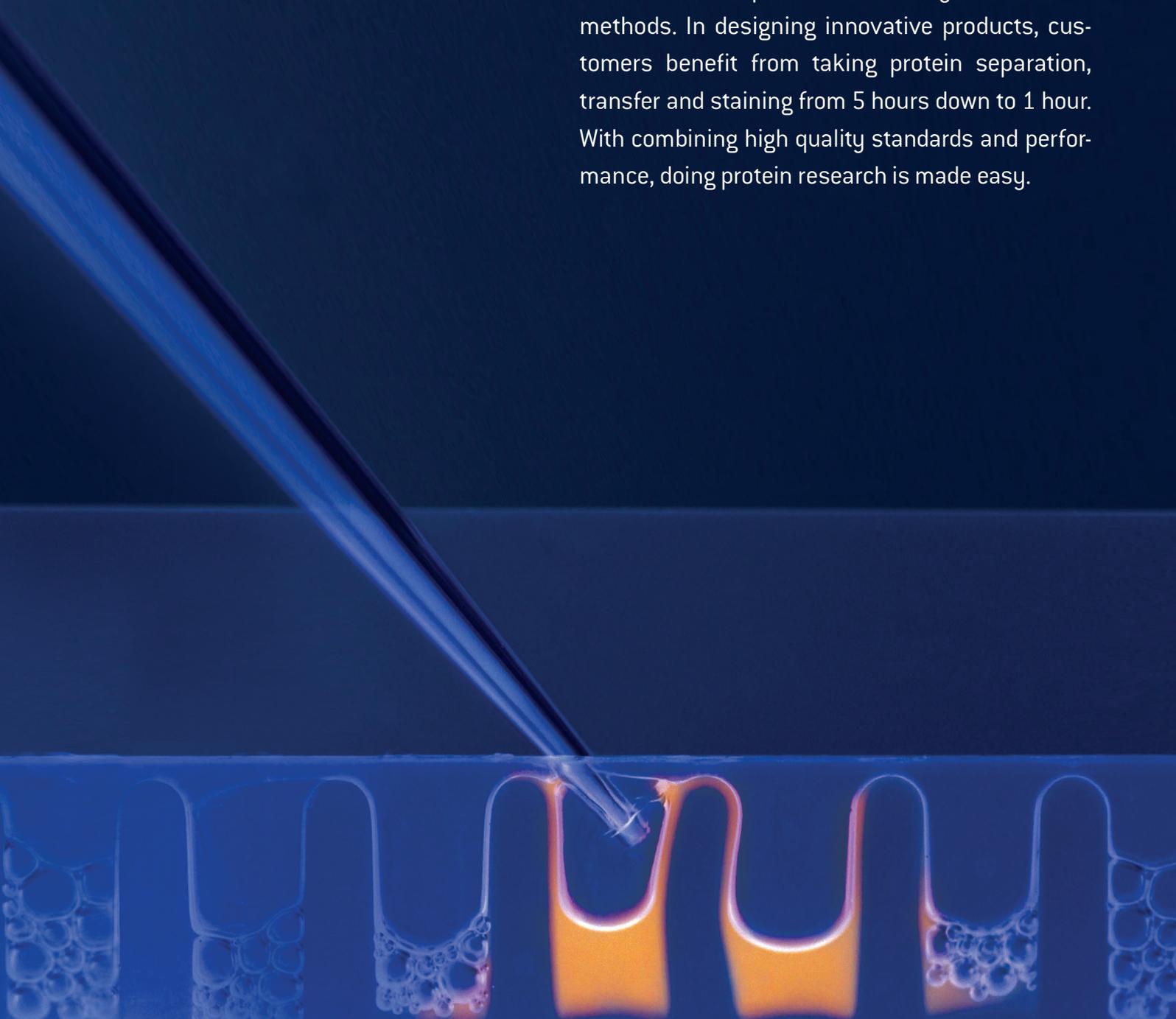


Protein Electrophoresis



Protein Electrophoresis from Lonza

With over 50 years experience in the separation of molecular fragments, Lonza offers novel protein solutions to help researchers beyond classical methods. In designing innovative products, customers benefit from taking protein separation, transfer and staining from 5 hours down to 1 hour. With combining high quality standards and performance, doing protein research is made easy.



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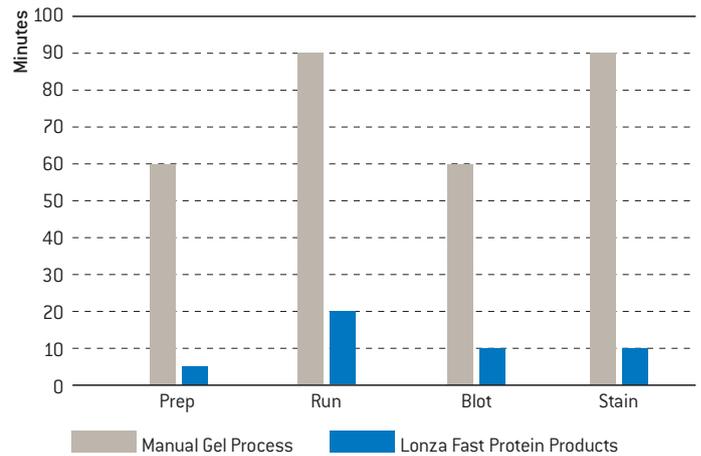
A Faster Solution For Protein Separation, Transfer, Blot, and Staining

Lonza's PAGE[®]™ EX and ProSieve™ EX Fast Protein products address the need for faster, more efficient, and reliable solutions for protein electrophoresis. Ultimately, these products take protein separation, Western blot and transfer, plus staining from over 5 hours down to less than 1 hour.

Each individual component offers a unique solution and can be incorporated into your current protein process:

- **PAGE[®]™ EX Gels** are designed for fast 20–25 minute separation with a 12 month shelf life using ProSieve™ EX Running Buffer
- **ProSieve™ EX Safe Stain** takes your staining process down to just 1 step in 10 minutes
- **ProSieve™ EX Stain Enhancer** is combined with Coomassie™ for a cost effective 15 minute staining
- **ProSieve™ EX Western Blot Transfer Buffer** can be used with any Tris-glycine gels for a 10 minute transfer
- **ProSieve™ EX Running Buffer** provides <30 minute separation for any Tris-glycine gels
- **ProSieve™ QuadColor™ Protein Marker** provides accurate confirmation of protein transfer in the range of 4.6 kDa–300 kDa

Lonza's Fast Protein Products Save Time in Each Stage of Protein Processing



Introductory Kits for Protein Transfer, Blotting, and Staining

Separate, Blot and Stain Faster!

PAGEr™ EX Protein Staining Kits and PAGEr™ EX Protein Transfer/Western Blot Kits are trial-size kits designed to combine the total solution for the ultimate fast separation with staining and transfer in less than 30 minutes.

These convenient all-in-one kits are a low cost option designed to save you time and simplify your protein electrophoresis process.

PAGEr™ EX Protein Staining Kit

- 10 minute, 1 step, safe protein staining method, with a 20 minute run
- This kit contains: 2 PAGEr™ EX Gels, ProSieve™ EX Running Buffer, ProSieve™ EX Safe Stain and a ProSieve™ QuadColor™ Marker



PAGEr™ EX Protein Transfer/Western Blot Kit

- 10 minute protein transfer time, with a 20 minute run.
- This kit includes: 2 PAGEr™ EX Gels, ProSieve™ EX Running Buffer, ProSieve™ EX Western Blot Transfer Buffer and a ProSieve™ QuadColor™ Marker

Ordering information

Cat. No.	Product	Description	Size	Well
201741	PAGEr™ EX Protein Staining Kit	Mid/High range 10–350 kDa	9 × 10 cm	12
201748	PAGEr™ EX Protein Staining Kit	Mid/High range 10–350 kDa	10 × 10 cm	12
201745	PAGEr™ EX Protein Staining Kit	Low/Mid range 5–225 kDa	9 × 10 cm	12
201746	PAGEr™ EX Protein Staining Kit	Low/Mid range 5–225 kDa	10 × 10 cm	12
201747	PAGEr™ EX Protein Transfer/Western Blot Kit	Mid/High range 10–350 kDa	9 × 10 cm	12
201742	PAGEr™ EX Protein Transfer/Western Blot Kit	Mid/High range 10–350 kDa	10 × 10 cm	12
201743	PAGEr™ EX Protein Transfer/Western Blot Kit	Low/Mid range 5–225 kDa	9 × 10 cm	12
201744	PAGEr™ EX Protein Transfer/Western Blot Kit	Low/Mid range 5–225 kDa	10 × 10 cm	12

PAGEr™ EX Gels

Fast, Long Shelf Life Option

PAGEr™ EX Gels are the ultimate protein precast gel that offer faster separation in less than 30 minutes, 12 month shelf life, high resolution quality, and unique size separation range that consolidates band resolution to only few gels.

Benefits include:

- Fast separation, 20–25 minutes
- 1 year shelf life
- Designed for use with ProSieve™ EX Running Buffer
- Fit most chambers
- Easy to use



PAGEr™ EX Gels Performance and Specifications

Separation	Equivalent Concentration	Well Formats	Dimensions	Buffer	Chambers
Mid/High range 10–350 kDa	4–12%	12-well or 16-well	9 × 10 cm or 10 × 10 cm	ProSieve™ EX Running Buffer	Most standard protein chambers
Low/Mid range 5–225 kDa	10%	12-well or 16-well	9 × 10 cm or 10 × 10 cm		

Chamber Compatibility – See the table on page 9

Ordering Information

Cat. No.	Product	Description	Size	Well
59722	PAGEr™ EX Gels, 10 gels/box	Mid/High range 10–350 kDa	10 × 10 cm	12
58722	PAGEr™ EX Gels, 10 gels/box	Mid/High range 10–350 kDa	9 × 10 cm	12
59724	PAGEr™ EX Gels, 10 gels/box	Mid/High range 10–350 kDa	10 × 10 cm	16
58724	PAGEr™ EX Gels, 10 gels/box	Mid/High range 10–350 kDa	9 × 10 cm	16
59702	PAGEr™ EX Gels, 10 gels/box	Low/Mid range 5–225 kDa	10 × 10 cm	12
58702	PAGEr™ EX Gels, 10 gels/box	Low/Mid range 5–225 kDa	9 × 10 cm	12
59714	PAGEr™ EX Gels, 10 gels/box	Low/Mid range 5–225 kDa	10 × 10 cm	16
58714	PAGEr™ EX Gels, 10 gels/box	Low/Mid range 5–225 kDa	9 × 10 cm	16

ProSieve™ EX Safe Stain and ProSieve™ EX Stain Enhancer

Revolutionary, Fast and Safe

These fast staining products are revolutionary for speed and process improvements. With independent features that make each product unique, choosing the right stain for your research is easy.

ProSieve™ EX Safe Stain

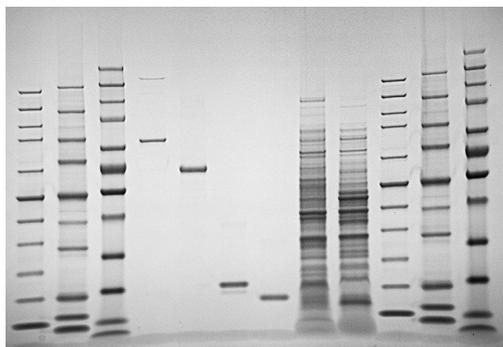
- Ultimate fast solution that provides a 1 step, safe stain in 10 minutes

ProSieve™ EX Stain Enhancer

- Provides a cost effective option for Coomassie™ stain users, 2 steps in 15 minutes

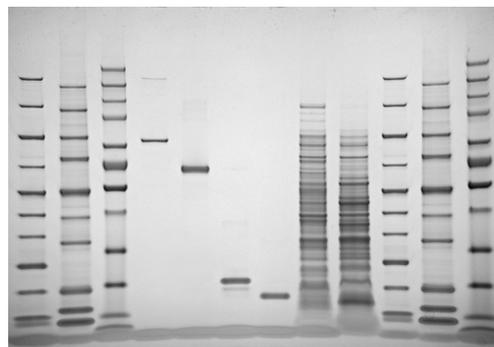


ProSieve™ EX Safe Stain With PAGEr™ EX Gels Offers Better Results in Half the Time



20 minute run with PAGEr™ EX Gels and ProSieve™ EX Running Buffer at 250V, 10 minutes ProSieve™ EX Safe Stain , (total 30 minutes)

ProSieve™ EX Stain Enhancer



PAGEr™ EX Gels stained using ProSieve™ EX Stain Enhancer and 0.0125% Coomassie™ Brilliant Blue G in water: 20 minute gel run with ProSieve™ EX Running Buffer at 250V, 10 minutes ProSieve™ EX Stain Enhancer, 5 minutes Coomassie™ Brilliant Blue (total 35 minutes)

Ordering Information

Cat. No.	Product	Size
201455	ProSieve™ EX Safe Stain	1 L
201369	ProSieve™ Stain Enhancer	1 L

ProSieve™ EX Running and Western Blot Transfer Buffers

Simple, Sharp and Fast

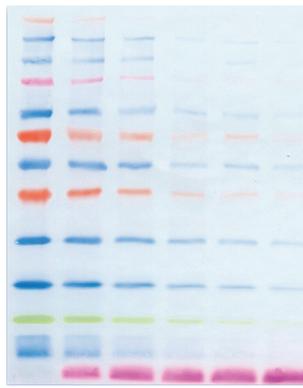
New protein separation and Western blot transfer buffers are modified formulations that perform just like Tris-glycine, but significantly accelerate run and transfer times without compromising results. The Laemmli gel system, based on Tris-glycine SDS buffers, is the recognized as the gold standard for analyzing proteins by PAGE. For over 40 years, efforts to improve the time and efficiency of this method have been limited...until now.

Overall, the standard 2-hour method for protein separation and transfer can be reduced to less than 30 minutes including:

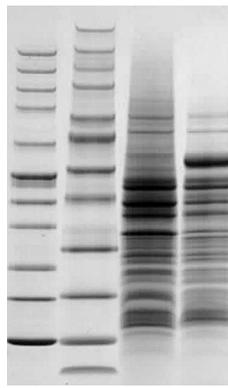
- Separation in less than 30 minutes
- Transfer in 10 minutes
- Compatibility with standard gel systems and protocols
- Razor sharp resolution



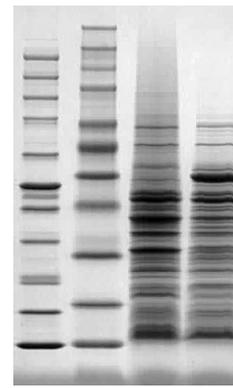
10 minute transfer with ProSieve™ EX Buffer



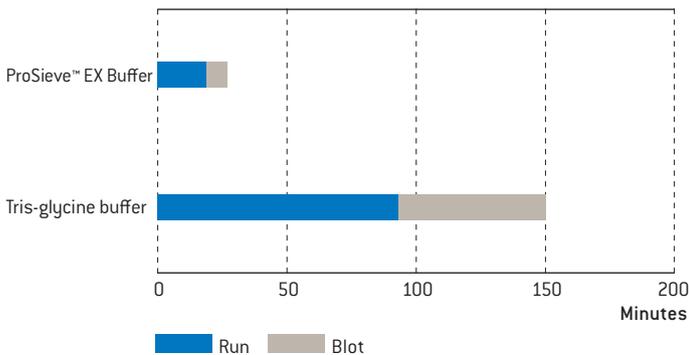
60 minute transfer with standard transfer buffer



15 minute run with ProSieve™ EX Buffer



40 minute run with Tris-glycine Buffer



Ordering Information

Cat. No.	Product	Size
200309	ProSieve™ EX Western Blot/Transfer Buffer	1 L
200307	ProSieve™ EX Running Buffer	1 L
200308	ProSieve™ EX Running Buffer	4 L
193837	ProSieve™ QuadColor™ Protein Marker	500 µL

PAGEr™ Minigel Chamber

Sharp Performance and Simplicity

PAGEr™ Minigel Chamber

The PAGEr™ Minigel Chamber is the easiest chamber you will ever use. The simple, lock-in-place core design assures a tight, flat fit. No need to remove the core, simply insert gels, close the clamps, fill with buffer and run. Runs one or two PAGEr™ Gels and accommodates a tank blotting module.

- Easy-to-use core eliminates leaking and minimizes handling
- Perfect fit with 9 cm × 10 cm and 10 cm × 10 cm PAGEr™ EX and PAGEr™ Gels
- Even electrical force ensures straight lanes

PAGEr™ Blot Module

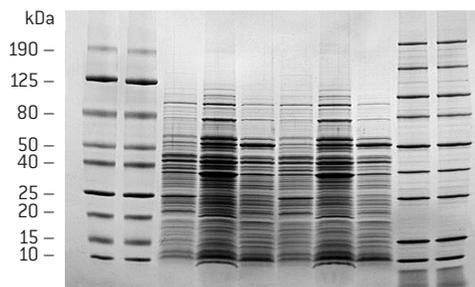
The PAGEr™ Blot Module works directly in the PAGEr™ Minigel Chamber and provides exceptional blotting with a fast, simple protocol.

- Color-coded cassettes ensure proper orientation of the gel during transfer
- Transfer time – 90 minutes or less
- Hinged cassette design for easy assembly

The system can be purchased as a kit, including the PAGEr™ Minigel Chamber, PAGEr™ Blot Module and sponge pads, or components may be purchased separately.



PAGEr™ Gel Minigel Chamber Performance



ProSieve™ Color Protein Markers and *E. coli* lysate run on a PAGEr™ Gel at 200V for 60 minutes in the PAGEr™ Minigel Chamber.

Ordering Information

Cat. No.	Product
59905	PAGEr™ Minigel Chamber
59906	PAGEr™ Tank Blot Module
59907	PAGEr™ Minigel Chamber and Blot Module Kit*

* Includes chamber, blotting cassette, and sponge pads. (8/pack). Contact Scientific Support for information about replacements parts.

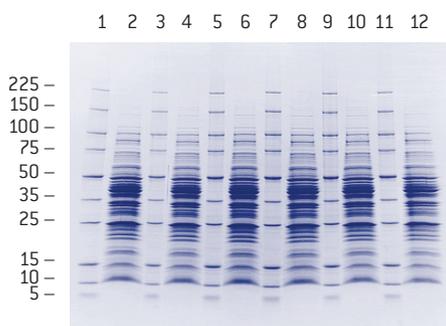
PAGEr™ Precast Gels

Sharp, Reliable, Easy-to-Use

PAGEr™ Gels are easy-to-use protein Tris-glycine minigels that offer sharp resolution and consistent protein transfer. Choose from multiple options for denatured and native protein separation over a wide molecular weight range, in an array of configurations in both 9 cm × 10 cm and 10 cm × 10 cm sizes to fit popular chambers.

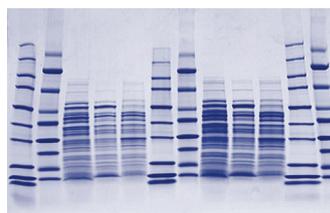
- Razor sharp resolution – crisp separation of proteins 5 kDa – 250 kDa
- Easy-to-use – marked sample lanes for easy loading and simple twist open design
- Versatile – multiple well formats and gel concentrations in 2 sizes to fit most chambers
- Tris-glycine buffer – traditional Laemmli separation
- Fresh – we ship fresh gels every time for guaranteed performance

Protein Separation With a PAGEr™ Precast Gel

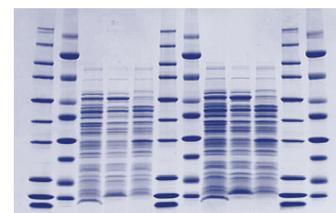


Separations on a 4 – 20% PAGEr™ Precast Gel. ProSieve™ Protein Markers lanes 1, 3, 5, 7, 9, and 11. *E. coli* extract in lanes 2, 4, 6, 8, 10 and 12. Proteins detected by Coomassie™ Brilliant Blue stain.

Competitor Gel

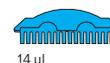


PAGEr™ Precast Gel



Resolution comparison of 4 – 20% Coomassie™ stained gels. Samples include a repeating pattern of ProSieve™ Protein Marker, ProSieve™ Color Protein Marker and *E. coli* lysates.

Ordering Information – PAGEr™ Gels



10 Gels per Box/ Concentration	Cassette Size [cm]	Cat. No. 2D-Well+	Cat. No. 8 + 1 Well*	Cat. No. 10-Well	Cat. No. 12-Well	Cat. No. 16-Well	Cat. No. 17-Well*
4 – 12% gradient	9 x 10 10 x 10	– –	– –	58520 59520	58522 59522	58524 59524	– –
4 – 20% gradient	9 x 10 10 x 10	– 59557	58551 59551	58511 59511	58505 59505	58517 59517	58545 59545
8 – 16% gradient	9 x 10 10 x 10	– 59564	58562 59562	58519 59519	58521 59521	58523 59523	58560 59560
10 – 20% gradient	9 x 10 10 x 10	– –	– –	58512 59512	58506 59506	58518 59518	– –
7.5%	9 x 10 10 x 10	– –	– –	58507 59507	58501 59501	58513 59513	– –
10%	9 x 10 10 x 10	– 59554	58548 59548	58508 59508	58502 59502	58514 59514	58542 59542
12%	9 x 10 10 x 10	– –	– –	58509 59509	58503 59503	58515 59515	58543 59543
15%	9 x 10 10 x 10	– 59556	58550 59550	58510 59510	58504 59504	58516 59516	58544 59544

* 8+1-well and 17-well gels are multichannel pipette compatible

Specifications

Dimensions	Cassette Thickness	Gel Dimensions
9 cm × 10 cm (L × W)	0.49 cm	7.1 × 8.3 (L × W) × 0.1 cm
10 cm × 10 cm (L × W)	0.55 cm	8.1 × 8.3 (L × W) × 0.1 cm
Gel matrix/buffer:	Polyacrylamide/Tris-glycine Note: Gels do not contain SDS. Add SDS to sample buffer to create denaturing running conditions.	
Stacking gel:	4% stacking gel	
Well format:	2D-well, 8+1 well*, 10-well, 12-well, 16-well, 17-well* *multichannel pipette compatible well formats	
Cassette:	Plastic	
Storage/shelf life:	2 °C – 8 °C for 3 months from date of manufacture Guaranteed 10 weeks upon receipt	

Chamber Compatibility

Manufacturer & Model	Gel Size 9 × 10 cm	Gel Size 10 × 10 cm
Lonza		
PAGEr™ Minigel Chamber	■	■
FisherBiotech®		
Fisher FB-VE 10-1	–	■
Fisher FB-VE 12-1	–	■
Fisher EC 120-2	■	■
Thermo Scientific		
EC 120 mini certical gel System	■	■
Invitrogen/Novex®		
XCell SureLock® MiniCell	–	■
Bio-Rad®		
Mini-PROTEAN® I, II & III	■	–
Ready Gel® Cell	■	–
Hoefler®		
Mighty Small SE 250	■	■
Mighty Small SE 260	■	■
Mighty Small SE 280	■	■
Mini VE	–	■
CBS Scientific		
MGV System	■	■
Owl Separation Systems		
Penguin™ P8DS-1	–	■

Separation Range in PAGEr™ Tris-Glycine Gels

Polyacrylamide Concentration	Size Separation Range
7.5%	50 kDa – 200 kDa
10%	25 kDa – 200 kDa
12%	20 kDa – 200 kDa
15%	10 kDa – 50 kDa
4 – 20%	5 kDa – 200 kDa
10 – 20%	5 kDa – 150 kDa
4 – 12%	25 kDa – 250 kDa
8 – 16%	15 kDa – 200 kDa

Some chambers may require adjustment for optimal fit with PAGEr™ Gels.
Contact Scientific Support for details.

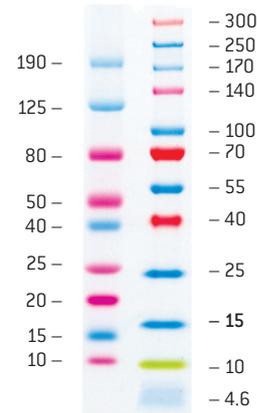
ProSieve™ Color Protein Markers

Sharp Performance and Simplicity

ProSieve™ Color Protein Markers are an easy method for monitoring protein separation prior to staining, and provide accurate confirmation of protein transfer in Western blotting.

- Convenient – just add water and load
- Sharp – multi-colored, readily identifiable band pattern
- Verify protein transfer following Western blotting

ProSieve™ Color Protein Marker



Ordering Information

Cat. No.	Product	Range	Size
50552	ProSieve™ Color Protein Marker (lyophilized, just add water and load)	10 kDa–190 kDa	100 µL
50550	ProSieve™ Color Protein Marker (lyophilized, just add water and load)	10 kDa–190 kDa	500 µL
193837	ProSieve™ QuadColor™ Protein Marker (thaw and load)	4.6 kDa–300 kDa	500 µL

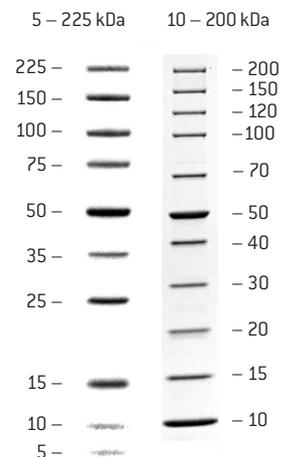
ProSieve™ Protein Markers

Sharp, Accurate Sizing of Proteins

ProSieve™ Protein Markers are designed for accurate sizing of proteins 5 kDa to 225 kDa. The 50 kDa band is double-intensity for easy identification.

- Simple – wide distribution of exact masses simplifies size determination
- Accurate – recombinant proteins do not contain oligosaccharides that can cause anomalous migration, heterogeneous “fuzzy” bands, and inaccurate size estimation

Performance of ProSieve™ Protein Markers



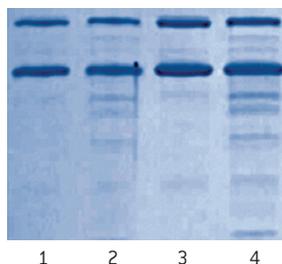
Ordering Information

Cat. No.	Product	Range	Size
50547	ProSieve™ Protein Marker	5 kDa–225 kDa	500 µL
193839	ProSieve™ Unstained Protein Marker II	10 kDa–200 kDa	500 µL

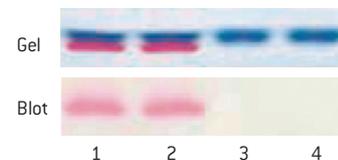
ProSieve™ ProTrack™ Dual Color Protein Loading Buffer

Protect and Track Protein Samples

- Protects proteins from degradation during sample prep
- Two colors for tracking electrophoresis progress (blue) and monitoring Western transfer (pink)
- Contains SDS and DTT for complete protein denaturing



Lanes 1 and 3 are proteins protected by ProSieve™ ProTrack™ Dual Color Loading Buffer, lanes 2 and 4 are proteins prepared and run in a standard loading buffer.



ProSieve™ ProTrack™ Blue Dye monitors protein separation on the gel, while the pink dye confirms transfer of the proteins onto the blot.

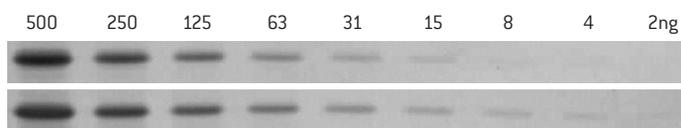
Ordering Information

Cat. No.	Product	Applications	Size
193861	ProSieve™ ProTrack™ Dual Color Protein Loading Buffer	1000 loads	5 mL

ProSieve™ Blue Protein Staining Solution

Improved Coomassie™ Dye

- Ready-to-use in a fast, 25–40 minute protocol
- No destaining required. Does not contain methanol or acetic acid
- Proteins stain to an endpoint, overstaining is not possible
- Detect 2–5 ng of protein
- Broad, linear dynamic range
- Can be reused up to 3 times without a decrease in sensitivity



Comparison of detection sensitivity between standard Coomassie™ Stain (upper bands) and ProSieve™ Blue Protein Staining Solution (lower bands).

Ordering Information

Cat. No.	Product	Size
193862	ProSieve™ Blue Protein Staining Solution	1 L

SYPRO® Protein Gel Stains

Fast, Sensitive, Easy-to-Use Fluorescent Gel Stains

SYPRO® Stains are exquisitely sensitive and simple fluorescent protein gel stains that rival the sensitivity of the best silver stains for a range of applications from 2D gel staining to staining gels prior to western blotting.

- SYPRO® Ruby Stain is the ideal stain for 2D analysis, offering a linear quantitation range of over three orders of magnitude
- SYPRO® Red Stain is the fastest, easiest stain for routine protein detection, requiring no fixation or destain
- SYPRO® Tangerine Stain does not interfere with protein activity and is ideal for staining gels prior to Western transfer
- SYPRO® Ruby Blot Stain offers sensitivity levels that rival colloidal stains for detecting proteins on blots

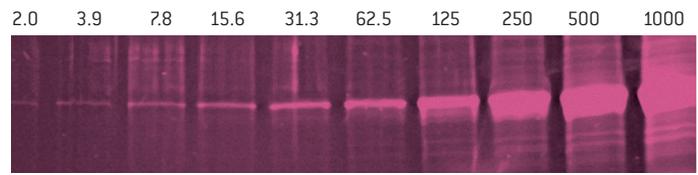
Select the Best Stain for Your Application

Application	SYPRO® Ruby	SYPRO® Tangerine	SYPRO® Red
High performance staining	■	–	■
Staining prior to western blotting	–	■	–
2D Electrophoresis	■	–	–
Edman microsequencing	■	■	■
Mass spectrometry	■	■	■
Quantitation	■	■	■
Zymography	■	■	■
Electroelution	■	■	■
Membrane staining	■	–	–
Protein expression	■	–	–
Detection prior to immunostaining	■	■	–
Difficult to stain proteins	■	–	–
IEF Gels	■	–	–

Ordering Information

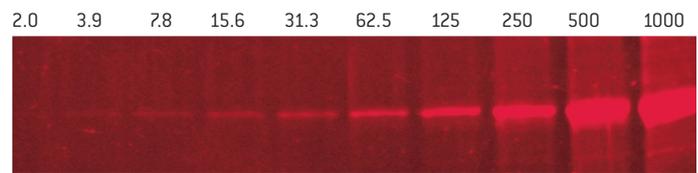
Cat. No.	Product	Size
50562	SYPRO® Ruby Protein Gel Stain	1 L
50563	SYPRO® Ruby Protein Gel Stain	5 L
50564	SYPRO® Ruby Protein Gel Stain	200 mL
50565	SYPRO® Ruby Protein Blot Stain	200 mL
50556	SYPRO® Tangerine Protein Gel Stain	500 µL
50542	SYPRO® Red Protein Gel Stain	10 x 50 µL
50543	SYPRO® Red Protein Gel Stain	500 µL
50540	SYPRO® Protein Gel Stain Photographic Filter	3 inch square

SYPRO® Ruby Stain



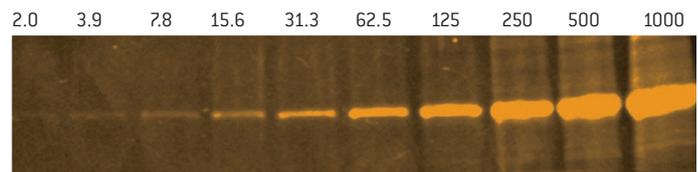
SYPRO® Red Stain

Diluted in PBS (Polaroid® photo UV light)

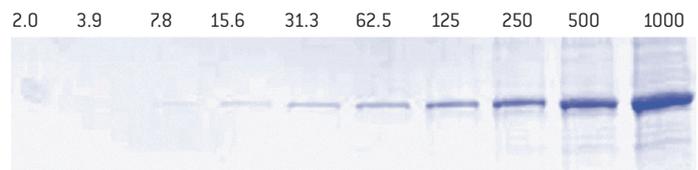


SYPRO® Tangerine Stain

Diluted in PBS (Polaroid® photo UV light)



Coomassie™ Brilliant Blue Stain



Serial dilutions of Lonza's ProSieve™ Protein Marker 50 kDa band on 12% PAGEr™ Gold Precast Gels. Protein level indicated in nanograms.

AccuGENE™ Electrophoresis Buffers

Optimized Performance from a Closed Reagent System

AccuGENE™ Buffers are prepared with high quality reagents and formulated to match PAGE™ Precast Gels. These buffers use 18 megohm water. Products are filtered using a 0.2-micron filter.

- Reliable – manufactured according to strict quality control standards to ensure lot-to-lot consistency
- Flexible – customized solutions are available to meet individual needs

Ordering Information

Cat. No.	Product	Size
50879	AccuGENE™ 10X Tris-glycine Buffer 0.25 M tris base, 1.92 M glycine	1 L
50881	AccuGENE™ 10X Tris-glycine Buffer 0.25 M tris base, 1.92 M glycine	4 L
50880	AccuGENE™ 10X Tris-glycine SDS Buffer 0.25 M tris base, 1.92 M glycine 1% SDS	1 L
50882	AccuGENE™ 10X Tris-glycine SDS Buffer 0.25 M tris base, 1.92 M glycine 1% SDS	4 L



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ProSieve™ EX Stain Enhancer, ProSieve™ QuadColor™ Protein Marker and ProSieve™ EX Stain are manufactured for Lonza. ProSieve™ Buffer technology is licensed from DGel Electrosystem, patents pending.

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