

ClearPAGE™

Precast Gels and Accessories



4 PRECAST GEL TYPES:

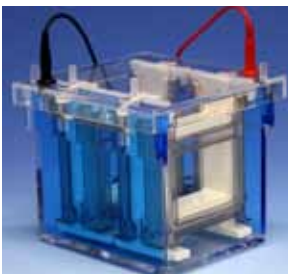
- 10cm x 10cm TEO Triethanolamine SDS gels
- 10cm x 8cm(h) TEO Triethanolamine SDS gels
- TGS Tris-Glycine SDS ClearPAGE "Classics"
- DNA/Native gels

FEATURES

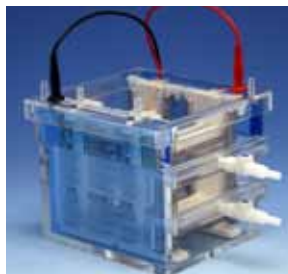
- TEO gel technology features a unique acrylamide polymer matrix for exceptional protein separations
- Sharp, clean, consistently straight bands with unsurpassed resolution
- 40% faster separation with "Turbo" buffer
- Super-strong gel makes handling easy... no tearing, ripping or cracking. Ideal for western blots.
- Simple buffer system. Reusable lower buffer saves time and money.
- TEO gels have a neutral pH for a 2 year shelf life - never throw away another gel
- Cost-effective replacement for Novex™, Invitrogen and BioRad precast gels with a longer shelf life.

COMPATIBLE WITH:

- The following C.B.S. Scientific Electrophoresis Systems:



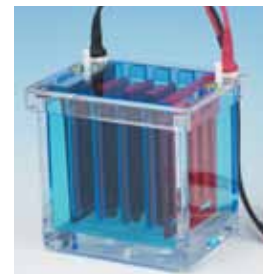
Quadra QNX-700
4-place Combo Cell
no internal cooling



Quadra QNC-700
4-place Combo Cell
internal cooling



Dual Cool DCX-700
2-place Combo Cell
with freezer blocks



Mini-Blotter EBU-204
4-place
cooling base



Mini-Blotter EBX-700
4-place
with freezer blocks

Also compatible with:

- Invitrogen™ XCell™ Minigel Chamber
- Lonza™ PAGER® Minigel Chamber
- BioRad Mini-Protean® (10cm x 8cm(h) gels only)*

*requires gasket kit # BRGK-100

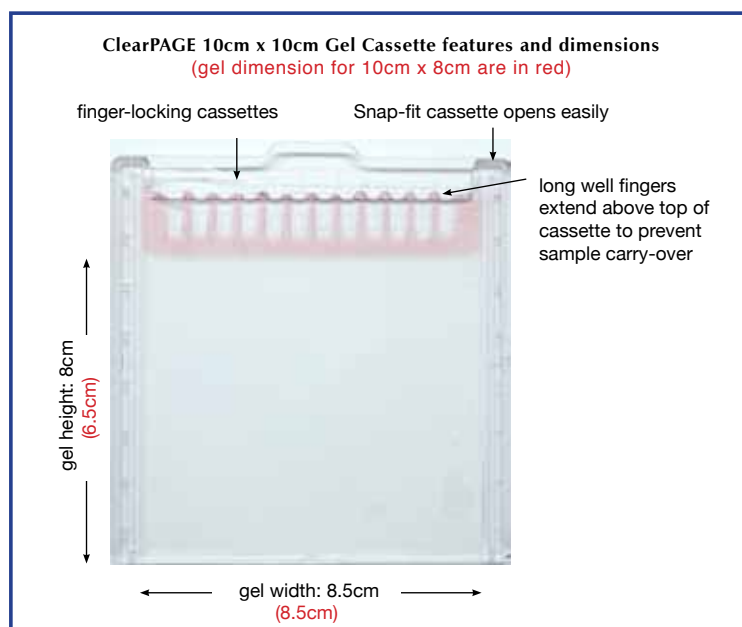
ClearPAGE™ is a trademark of C.B.S. Scientific. PAGEr™ and Lonza™ are trademarks of Lonza Corporation. XCell™ Novex™ and Invitrogen™ are trademarks of Life Technology Corp. Mini-PROTEAN Tetra Cell® is a registered trademark of Bio-Rad Laboratories Corporation.

SPECIFICATIONS:

Packaged in either a standard 10 x 10 cm or 10cm x 8cm(h) plastic cassette with a overall thickness of 7mm. Please refer to diagram for cassette features and dimensions. All gels have the ability to expand the resolving range of a given gel by running the small proteins off the unsealed bottom of the gel.

The gels are all 1mm thick. All gel types are available in 12-well and 17-well format. 2D and Prep-well (1 well) formats are also available. The TEO gels use a red loading area, TGS gels use a white loading area and the DNA/Native gels use a green loading area.

The TEO gels have a shelf life of 2 years. The ClearPAGE "Classics" TGS gels have a shelf life of 4 months.



GEL TYPES OFFERED AND RECOMMENDED RUNNING BUFFERS:

acrylamide %	Triethanolamine SDS 10cm x 10cm # of wells offered	Triethanolamine SDS 10cm X 8cm(h) # of wells offered	ClearPAGE "Classics" Tris-Glycine SDS # of wells offered	DNA/Native Gels # of wells offered
8%	12, 17		12, 17	
10%	1, 12, 17			12, 17
12%	1, 12, 17	1, 12, 17		
16%	12, 17			
2 - 8%				12, 17
3 - 20%				12, 17
4 - 8%	12, 17	1, 12, 17		
4 - 12%	12, 17			
4 - 20%	1, 2D, 12, 17	1, 12, 17	12, 17	12, 17
8 - 16%			12, 17	12, 17
10 - 20%	1, 12, 17	1, 12, 17		
Running Buffers	Turbo Buffer FB14050 SDS non-reducing FB50500 SDS reducing FB60500	Turbo Buffer FB14050 SDS non-reducing FB50500 SDS reducing FB60500	TGS Run Buffer FB82500	DNA/Native Run Buffer GB61500

COMB LOAD VOLUMES:

Well Type	Lane width	Maximum load volume
12-well	4.2 mm	35 µl
17-well	2.2 mm	17 µl
2-D well through	70 mm	300 µl
Marker Well	4.2 mm	17 µl
Prep-Well	75 mm	400 µl

ClearPAGE™ TEO and DNA/Native Gels

Long Shelf Life: Never throw away expired gels again! These gels use a neutral pH gel buffer to reduce alkaline hydrolysis. Combined with reduced polymer swelling, all gels, including high percentage gels, carry a "Best By Date" of over a year from the date of manufacture. They show no change in the separation when stored at 4°C during that period, and will give useful results for years afterward. The gels also may be stored at room temperature (up to 25°C) for 3 months after receipt.

Get Faster Separations with Turbo Buffer: Use ClearPAGE Turbo SDS Running Buffer (catalog #FB14053 and FB14050) to shift the gel separation range so as to increase spacing of smaller proteins. Use this running buffer only with the ClearPAGE TEO SDS gels up to 12%, 8%, 10%, 12%, 4-8% and 4-12%. Gels run about 40% faster with Turbo running buffer. This buffer contains SDS, tris and MOPS, with 5mM sodium bisulfite. See our migration charts on pages 5. For antibody separations use the Tricine Buffer cat. # FB60500.

Better resolution and sensitivity: The gel technology in ClearPAGE™ products provide robust separations superior to other products on the market. Improved stacking allows large sample volumes so that 1mm ClearPAGE™ cassette gels have the equivalent sensitivity to 1.5mm gels. With the ClearPAGE™ team members' broad experience developing and making commercial pre-cast gels and our commitment to quality, you can be assured of high-quality, consistent performance every time.

Superior DNA Separations: Precast DNA and Native PAGE gels also have a long shelf life. These gels are a neutral pH and utilize a stacking system. Larger sample volumes (such as 35 µl/12 well and 17 µl/17 well) will still produce sharp bands. Refer to migration chart on page 5.

Incredibly strong & elastic gels:

New polymer and polymerization technology are used to make high-resolution, cross-linked polyacrylamide gels combined with a small amount of agarose in plastic cassettes without a coating. These gels are about 10 times stronger than the equivalent polyacrylamide gel without agarose, so they can be handled, stained, and dried without tearing or cracking, and blotted without sticking to your blotting membrane. This polymer also reduces shrinking and swelling 10- to 20-fold allowing us to make a full range of gel percentages using the same gel and running buffer system. SDS PAGE separations cover proteins from 1 to 1000 kDa.



Additional Features:

- No comb or tape to remove shortens your preparation time.
- Cassette design allows longer path length than competition, increasing resolution
- Well fingers project above the top of the cassette to prevent sample carry-over from the outside of the pipette between lanes.
- Running buffers may be reused on the anode side, unlike with NuPAGE™ gels. You can save 75% of the buffer cost.
- ClearPAGE™ gels now have a red, white or green (depending on gel type) dye suspended within the loading area for better well visualization. This dye runs ahead of the bromophenol blue marker.

ClearPAGE “Classics” Tris-Glycine Gels

The ClearPAGE™ “Classics” TGS gels that use the classic Laemmli buffer (tris-chloride at pH 8.6) with 0.1% SDS. TGS gels come in a 10cm x 10cm cassette with 12% and gradient formulations of 8-16% and 4-20%. The range of proteins these gels can separate collectively is from ~ 5 kDa to ~ 400 kDa and all the gels are run with a 10 1x dilution of the TGS run buffer (FB82500).

The TGS gels have a longer shelf life than usual for this buffer system. Gels stored at 4°C show no significant change for at least

four months. They change slowly thereafter, so provide useful results for at least 8 months. The composite-polymer construction adds physical stability to maintain the performance. Most importantly, the proprietary photo-polymerization system produces superb resolution. These gels provide superior results provided that the gel is processed for staining or blotting as described in the running and blotting instructions. SDS is required in the blotting buffer for these gels.

ClearPAGE™ Stain & Markers

Instant Blue A Fast One-Step Stain

EASY TO USE: Remove SDS, fix and stain in ONE STEP. No destain is needed.

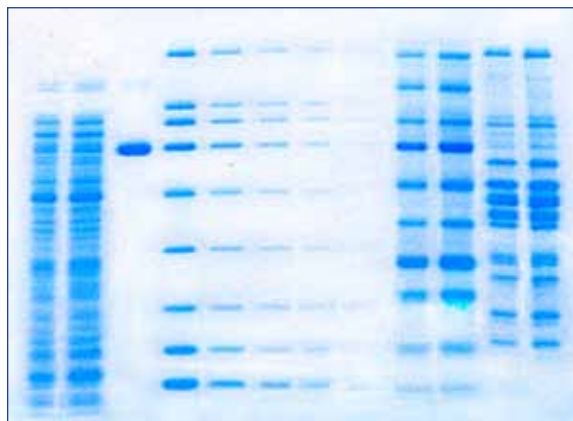
FAST: Results in 10 to 30 minutes

SENSITIVE: 5-25ng of protein can be detected with low background

NON-HAZARDOUS: Contains no methanol, suited for regular use and disposal

DESCRIPTION

Instant Blue stain is a ready-to-use, proprietary Coomassie G-250 stain that is optimal for obtaining well defined protein bands in a single step. Protein gel staining takes only 10-30 minutes because there is no need to wash, fix, microwave or destain. Instant Blue stain contains a proprietary SDS-sequestering agent (patent pending) that makes it so fast and easy. Since SDS binds stain, it normally must be removed to get good sensitivity. Usually some remains in the gel, which contributes to background and requires destaining. The SDS-sequestering agent removes the SDS from the gel, so no washes or destaining is necessary. Its special formulation has the benefits of high sensitivity (approximately 5-25ng of protein detected per band) and low background interference-improving the overall gel resolution. Additionally it contains no methanol and is ideally suited for regular use and disposal.



ORDERING INFORMATION

Catalog #	Description
HG73010	Instant Blue stain, 1 liter. Enough for 40-50 mini-gels
HG73120	Instant Blue stain, 100ml. Enough for 4-5 mini-gels
HG73050	Instant Blue stain, trial size, 50 ml.

Two-Color SDS Marker

An orange/blue prestained marker is now available for SDS-PAGE

Stable and Sharp Recombinant Proteins

Economical - Use in place of unstained markers

DESCRIPTION

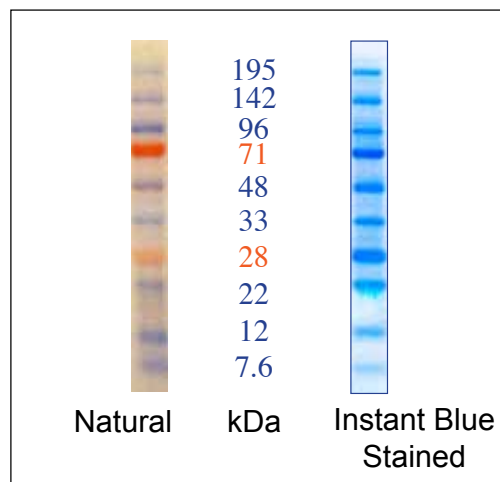
The recombinant proteins range in size from 7.6 kDa to 195 kDa. The orange markers are 28 kDa and 71 kDa, the other 8 bands are blue. The ClearPAGE Two-Color SDS Marker is sold ready to use in a 1x LDS sample buffer with 600 µl per vial (catalog # HM05160). The purity and band sharpness mean the markers can be used for visualizing the separation while running the gel, checking effectiveness on your blot, or as a routine marker in place of other unstained markers.

Recommended volumes to load are:

Application	12-well gels (4.2mm wide)		17-well gels (2.2mm wide) & marker well on 2D gels	
	Load Volume	Loads/ Vial	Load Volume	Loads/Vial
See during run	10 µl	60	5 µl	120
See on Blot Membrane	4 µl	150	2 µl	300
See with Stain	4 µl	150	2 µl	300

ORDERING INFORMATION

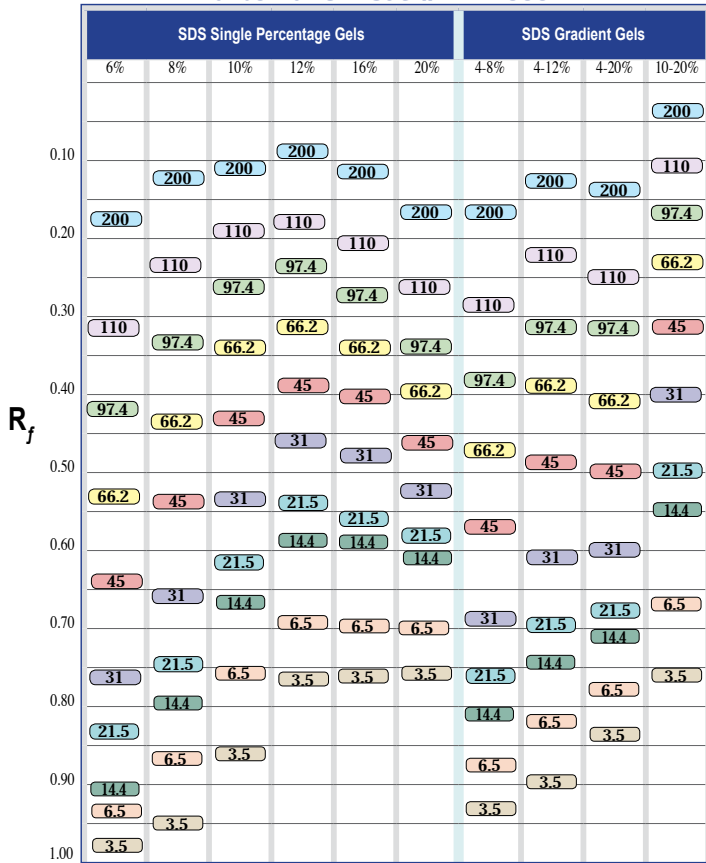
Catalog #	Description
HM05103	Two-Color SDS Marker, 30 µl
HM05160	Two-Color SDS Marker, 0.6 ml



Comparison of Marker on ClearPAGE 12%, 12 well SDS gel with or with Instant Blue stain. Molecular weights are the apparent weights in the ClearPAGE SDS gel system.

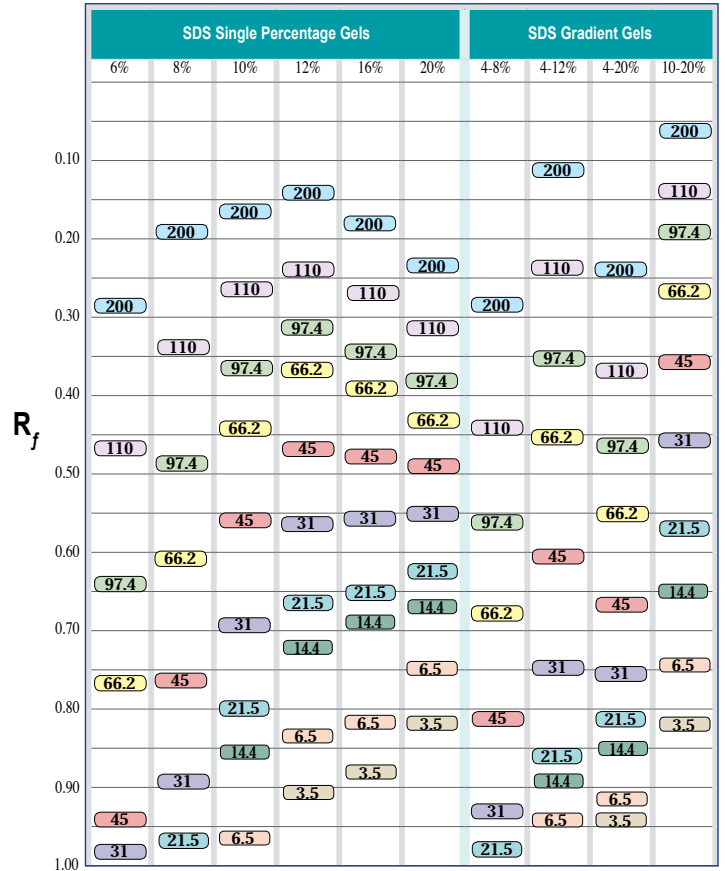
ClearPAGE™ Precast Gel Migration Chart in kDa

Turbo Buffer - Cat. # FB14500



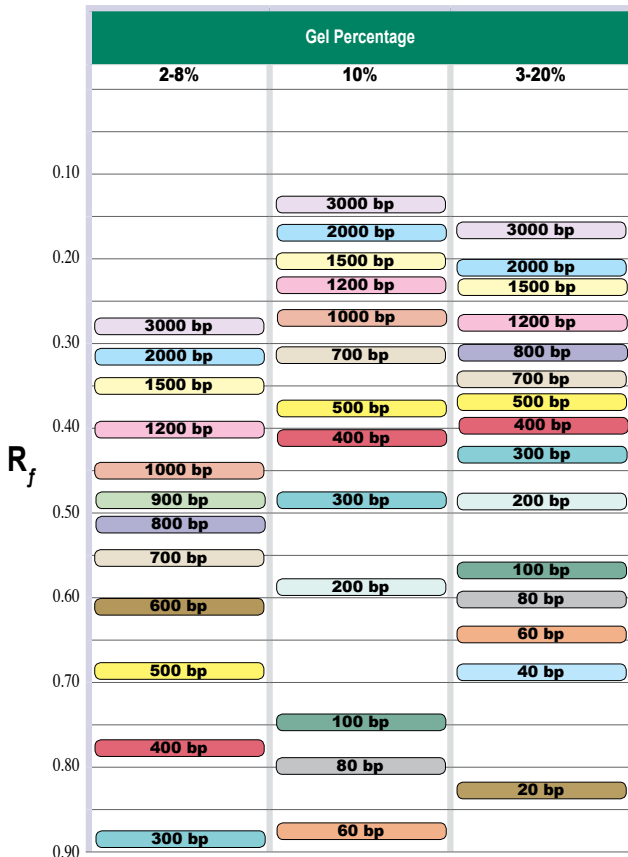
ClearPAGE™ Precast Gel Migration Chart in kDa

Tricine Buffer - Cat. #FB60500



ClearPAGE™ DNA/Native Gel Migration Chart

DNA/Native Buffer - Cat. #FB61500



ClearPAGE™ SDS-PAGE Precast Gel Comparison Chart

ClearPAGE™ Gel	Shelf Life	Comparable Gel	Shelf Life
ClearPAGE™	Shelf Life	Invitrogen NuPAGE® Gels	Shelf Life
10% SDS	2 years	10% NuPAGE® BisTris Run with MOPS	1 year
12% SDS	2 years	12% NuPAGE® BisTris Run with MOPS	1 year
4-12% SDS	2 years	4-12% NuPAGE® BisTris Run with MOPS	1 year
12% SDS	2 years	10% NuPAGE® BisTris Run with MES	1 year
16% SDS	2 years	12% NuPAGE® BisTris Run with MES	1 year
4-20% SDS	2 years	4-12% NuPAGE® BisTris Run with MES	1 year
8% SDS	2 years	7% NuPAGE® Tris-Acetate	1 year
4-8% SDS	2 years	3-8% NuPAGE® Tris-Acetate	1 year
ClearPAGE™	Shelf Life	Novex® Gels	Shelf Life
4-8% SDS	2 years	4% Tris-Glycine	8 weeks
4-8% SDS	2 years	6% Tris-Glycine	8 weeks
8% SDS	2 years	8% Tris-Glycine	8 weeks
8% SDS	2 years	10% Tris-Glycine	8 weeks
10% SDS	2 years	12% Tris-Glycine	4-8 weeks
12% SDS	2 years	14% Tris-Glycine	4-8 weeks
12% SDS	2 years	16% Tris-Glycine	4-8 weeks
16% SDS	2 years	18% Tris-Glycine	4-8 weeks
4-12% SDS	2 years	4-12% Tris-Glycine	4-8 weeks
4-12% SDS	2 years	8-16% Tris-Glycine	4-8 weeks
4-20% SDS	2 years	4-20% Tris-Glycine	4-8 weeks
10-20% SDS	2 years	10-20% Tris-Glycine	4-8 weeks
12% SDS	2 years	10% Tricine	4-8 weeks
16% SDS	2 years	16% Tricine	4-8 weeks
10-20% SDS	2 years	10-20% Tricine	4-8 weeks
ClearPAGE™	Shelf Life	Bio-Rad Ready Gels™	Shelf Life
4-8% SDS	2 years	5% ReadyGel Tris-HCl	8 weeks
8% SDS	2 years	7.5% ReadyGel Tris-HCl	8 weeks
8% SDS	2 years	10% ReadyGel Tris-HCl	8 weeks
10% SDS	2 years	12% ReadyGel Tris-HCl	8 weeks
12% SDS	2 years	15% ReadyGel Tris-HCl	8 weeks
16% SDS	2 years	18% ReadyGel Tris-HCl	8 weeks
4-12% SDS	2 years	4-15% ReadyGel Tris-HCl	8 weeks
4-12% SDS	2 years	8-16% ReadyGel Tris-HCl	8 weeks
4-20% SDS	2 years	4-20% ReadyGel Tris-HCl	8 weeks
10-20% SDS	2 years	10-20% ReadyGel Tris-HCl	8 weeks
16% SDS	2 years	16.5% ReadyGel Tris-Tricine/Peptide	8 weeks
10-20% SDS	2 years	10-20% ReadyGel Tris-Tricine/Peptide	8 weeks

Ordering Information

ClearPAGE SDS gels- TEO, 10cm x 10cm, packages of 10		
Cat. #	acrylamide %	# of wells
FK00812-10	8%	12
FK00827-10	8%	17
FK01001-10	10%	1
FK01012-10	10%	12
FK01027-10	10%	17
FK01201-10	12%	1
FK01212-10	12%	12
FK01227-10	12%	17
FK01612-10	16%	12
FK01627-10	16%	17
FK40812-10	4 - 8%	12
FK40827-10	4 - 8%	17
FK41212-10	4 - 12%	12
FK41227-10	4 - 12%	17
FK42001-10	4 - 20%	1
FK42002-10	4 - 20%	2D
FK42012-10	4 - 20%	12
FK42027-10	4 - 20%	17
FK82001-10	10 - 20%	1
FK82012-10	10 - 20%	12
FK82017-10	10 - 20%	17

ClearPAGE SDS gels- TEO, 10cm x 8cm(h), packages of 10
If using BioRad Mini-Protean™ order gasket adaptor kit BRGK-100.

Cat. #	acrylamide %	# of wells
BK01201-10	12%	1
BK01212-10	12%	12
BK01217-10	12%	17
BK40801-10	4-8%	1
BK40812-10	4-8%	12
BK40817-10	4-8%	17
BK42001-10	4-20%	1
BK42012-10	4-20%	12
BK42017-10	4-20%	17
BK82001-10	10-20%	1
BK82012-10	10-20%	12
BK82017-10	10-20%	17

ClearPAGE buffers, stains and markers

Cat. #	description	amount
FB31002	LDS Sample Buffer	2 ml
FB31010	LDS Sample Buffer	10 ml
FB32001	DTT reducer, 10X	1 ml
FB50053	SDS-non-reducing running buffer	50 ml
FB50500	SDS-non-reducing running buffer	0.5L
FB60053	SDS reducing running buffer	50 ml
FB60500	SDS reducing running buffer	0.5 L
FBI4053	Turbo buffer	50 ml
FBI4050	Turbo buffer	0.5 L
FB82500	TGS transfer buffer for all types of gels & run buffer for TGS gels only	0.5 L
HG73010	Instant Blue stain	1 L
HG73050	Instant Blue stain, trial size	50 ml
HM05160	2-color marker	0.6 ml
HM05103	2-color marker, trial size	30 µl

ClearPAGE "Classics" SDS gels - TGS, packages of 10 use with FB82500 running buffer		
Cat. #	acrylamide %	# of wells
TG-01212-10	12	12
TG-01217-10	12	17
TG-42012-10	4 - 20%	12
TG-42017-10	4 - 20%	17
TG-81612-10	8 - 16%	12
TG-81617-10	8 - 16%	17

ClearPAGE Blotting and Drying

Cat. #	description	amount
FB82500	TGS transfer buffer, 10x	500 ml
HP19001	Blot sandwich NC 90 x 85mm, 0.2µl nitrocellulose/1mm blotting paper	2 pack
HP19020	Blot sandwich NC 90 x 85mm, 0.2µl nitrocellulose/1mm blotting paper	20 pack
HP29301	Blot sandwich PVDF 90 x 85mm, 0.2µl PVDF/1mm blotting paper	2 pack
HP29320	Blot sandwich PVDF 90 x 85mm, 0.2µl PVDF/1mm blotting paper	20 pack
HBO4510	Gel drying solution	1 L
HBO2520	Precut cellophane	20 sheets
HB90001	Drying frame with 8 clamps with cellophane	20 pieces of cellophane

ClearPAGE DNA/Native gels, packages of 10

Cat. #	acrylamide %	# of wells
GN01012-10	10%	12
GN01027-10	10%	17
GN20812-10	2 - 8%	12
GN20827-10	2 - 8%	17
GN32012-10	3 - 20%	12
GN32027-10	3 - 20%	17

ClearPAGE DNA/Native Buffers

Cat. #	description	amount
GB33002	DNA/Native sample buffer, 4 x	2 ml
GB33010	DNA/Native sample buffer, 4 x	10 ml
GB61045	DNA/Native running buffer, 20 x	45 ml
GB61500	DNA/Native running buffer, 20 x	0.5 L

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