



## PAGE Buffers

Five buffers are available in powder sachets for a range of native and denaturing protein gel electrophoresis techniques.

Each powder sachet, which is supplied as a 10-pack, may be reconstituted to make 1 litre of working solution. Running buffers are also available in 1 litre and 5 litre volumes as ready made 10x Tris-Glycine and 10x Tris-Glycine-SDS solutions.



### KEY FEATURES

- Convenient, pre-made stock solution or powder – just dilute or dissolve as necessary with water
- Save time & trouble – no weighing, pH adjustment or need to stock individual compounds
- Long shelf-life
- Consistency assured – rigorous QC for reproducible separations

### TECHNICAL SPECIFICATIONS

Powder Buffer	Composition	Applications
Tris-Glycine SDS	Each litre of 1x working solution contains: Tris-base (25mM); glycine (192mM); SDS, 0.1% (w/v); followed by distilled water. Working solution pH = 8.3.	Denaturing SDS-PAGE for most cellular proteins. 10- 200kDa in size
Tris-Glycine	Each litre of 1x working solution contains: Tris-base (25mM); glycine (192mM); followed by distilled water. Working solution pH = 8.3.	Native PAGE
Tris-Tricine-SDS	Each litre of 1x working solution contains: Tris-base (0.1M); tricine, (0.1M); SDS, 0.1% (w/v); followed by distilled water. Working solution pH = 8.25.	Denaturing SDS-PAGE, with greater resolving power for small proteins 2-20kDa in size
MOPS-SDS	Each litre of 1x working solution contains: MOPS (50mM); Tris Base (50mM); SDS, 0.1% (w/v); EDTA (1mM); followed by distilled water. Working solution pH = 7.7.	Denaturing SDS-PAGE for medium- to large-sized proteins
MES-SDS	Each litre of 1x working solution contains: MES (50mM final stock concentration); Tris Base (50mM); SDS, 0.1% (w/v); EDTA (1mM); followed by distilled water. Working solution pH = 7.3.	Denaturing SDS-PAGE for small- to medium-sized proteins; faster than MOPS

## BP Grade ultra pure water

BP Grade Sterile Water has endotoxins removed by electrostatic filtration at the final purification stage prior to autoclaving. The LAL tested water conforms to the standard having less than <0.25EU/ml to ensure the water is of pre-requisite quality. This product is therefore pyrogen free. CFU>0 WFi compatible.

## Ponceau S

Ponceau S staining solution is reusable and available in a convenient 500ml volume for membrane staining and early protein detection following transfer before western blotting. Ponceau S may also be supplied a powder staining kit for long-term storage.

### ORDERING INFORMATION

#### POWDER BUFFERS

CSL-TGSDSP	Powdered Tris-Glycine-SDS Running buffer - 10 Sachets (10 litres/pk)
CSL-TGP	Powdered Tris-Glycine Running buffer - 10 Sachets (10 litres/pk)
CSL-TTSDSP	Powdered Tris-Tricine-SDS Running buffer - 10 Sachets (10 litres/pk)
CSL-MSDSP	Powdered MOPS-SDS buffer Running buffer - 10 Sachets (10 litres/pk)
CSL-MESDSP	Powdered MES-SDS buffer Running buffer - 10 Sachets (10 litres/pk)
CSL-PSS	Ponceau S staining solution (500ml)
UPW1000	BP Grade Sterile Water, 1000ml
RFW250	RNase-Free Water, 1x250ml

#### LIQUID BUFFERS

TG10X1L	Buffer Tris-Glycine 10 x 1 litre
TG10X5L	Buffer Tris-Glycine 10 x 5 litre
TG-SDS10X1L	Buffer Tris-Glycine SDS 10 x 1 litre
TG-SDS10X5L	Buffer Tris-Glycine SDS 10 x 5 litre
CSL-PSB	Ponceau S staining solution powder staining kit (makes 2000ml)
RFW50X5	RNase-Free Water, 50x5ml

## Protein Markers

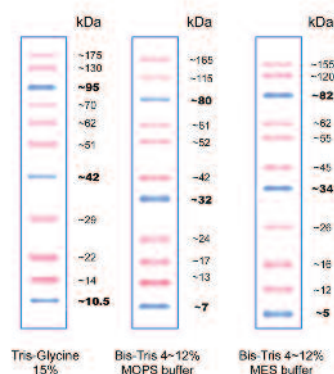
Stable for up to 2 years if stored at -20°C and supplied pre-stained in gel loading buffer for direct loading, Cleaver Scientific PINK Plus and BLUE Wide Range recombinant protein markers are perfect for SDS-PAGE applications.

Sizes range from 10-175kDa for PINK Plus and 10-245kDa for BLUE Wide Range, making both markers suitable for accurate molecular weight determination of most cellular proteins.

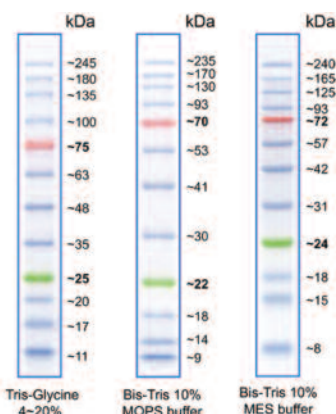
Each marker is covalently bound to a pink or blue colour chromophore to produce a ladder of evenly interspersed bands of uniform intensity. Coloured reference bands serve as visual indicators of electrophoresis run progression and the efficiency of western transfer onto membranes following SDS-PAGE. Both PINK Plus and BLUE Wide Range markers can be detected at volumes as low as 2.5µl per well.

### TECHNICAL SPECIFICATIONS

Cat. No.	CSL-PPL	CSL-BBL
Size Range	10-175kDa	10-245kDa
Number of Bands	11	12
Reference Bands	10, 40 and 90kDa blue	25 & 75kDa; green & red
Contents	maximum 2.2mg total protein in 15% (v/v) glycerol, 2% SDS	maximum 2.4mg total protein in 15% (v/v) glycerol, 2% SDS
Volume Supplied	500µl	500µl
Storage	3 months at 4°C & 24 months at -20°C	
Loading Volume	2.5-5µl/well	
Number of Applications	100-200	
Source	recombinant proteins, various sources	



PPL Pink Plus



BBL Blue Wide Range

## Blotting membranes

Used in Western blotting, Slot and Dot blotting, Southern and Northern blotting. PVDF with nitrocellulose (proteins) and nylon (RNA and DNA) membranes are available for different application needs and in different formats. We supply membranes in sheet form and as a 3M role which can be cut to size to fit experimental needs.

## Blotting membrane rolls

Supplied in 0.24x3m and 0.3x3m (w x l) sizes, allowing them to be cut to match specific gel formats, these membrane rolls are suitable for transfer of proteins and nucleic acids from polyacrylamide and agarose gels. Offered in 0.2µm and 0.45µm pore sizes.

## Blot absorbent filter paper

This blot-absorbent filter paper is supplied in packs of 50 and in sizes of 10x10cm and 20x20cm. Its 1mm thick texture and high buffer retention properties, being able to absorb twice its own weight in buffer, allow it to exert the gel-membrane compression needed for efficient transfers.

### ORDERING INFORMATION

#### PROTEIN MARKERS

CSL-PPL	Pink Plus Prestained Protein Ladder, 10-175kDa, with 10, 40 & 90kDa reference bands, 1x 500µl vial.	CSL-BBL	Blue Wide Range Prestained Protein Ladder, 10-245kDa, with 25 & 75kDa reference bands, 1x 500µl vial.
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#### BLOTTING MEMBRANES AND ROLLS

CSL-RNC45	Nitrocellulose roll, 0.3x3m (w x l), 0.45µm	CSL-RNY45	Positively charged supported nylon, 0.24x3m (w x l)
CSL-RNC2	Nitrocellulose roll, 0.3x3m (w x l), 0.2µm	CSL-RNY2	Positively charged supported nylon, 0.24x3m (w x l)
CSL-PVDF0.22S	10 Pre-cut PVDF 28 x28 cm 0.22µm	CSL-PVDF0.45R	Roll PVDF 28 cm x 3 m, 0.45µm
CSL-PVDF0.45S	10 Pre-cut PVDF 28 x28 cm 0.45µm	CSL-PVDF0.22R	Roll PVDF 28 cm x 3 m, 0.22µm

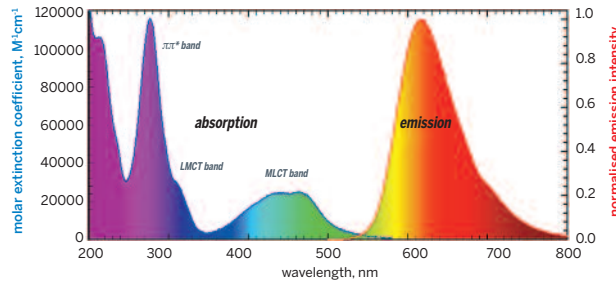
#### BLOT ABSORBENT FILTER PAPER

CSL-BP1010	Blot-Absorbent Filter paper, 10x10cm, pack of 50	CSL-BP2020	Blot-Absorbent Filter paper, 20x20cm, pack of 50
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# Protein Gel Staining

**EZEE RubyPro** is a ready to use kit for rapid and sensitive protein staining of 1D and 2D SDS PAGE gels. It enables high contrast and optimal visualization and quantitation of proteins. The staining procedure is a simple 220 minute, three step protocol. The fluorescent stain involves simple dye-binding mechanisms rather than chemical reactions that could alter protein functional groups. Thus, downstream applications are not affected and after staining, proteins can be analyzed by mass spectrometry directly. The dye has optimal excitation at 302 and 470 nm, with maximum emission at approximately 610 nm. EZEE RubyPro can be excited with UV-light transilluminator, 405, 445, 473-488 nm laser sources or 470nm blue LED light source.



## KEY FEATURES

- High purity dye: >98%
- Optimal signal to background ratio
- Strong, uniform and reproducible signal from 0.2ng to 10ng protein
- Fast staining protocol (220 min)
- Convenient: ready to use kit - fixing and de-staining solutions included in the kit
- Mass spectrometry compatible

**EZEE UltraBlue** is a sensitive, safe and environmentally friendly protein stain compatible with mass spectrometry. EZEE UltraBlue is an enhanced Coomassie-based protein stain formulated for fast and sensitive protein detection without the involvement of hazardous chemicals such as methanol and acetic acid. Protein detection limits are as low as 10ng and visualization can be achieved in less than 1 hour

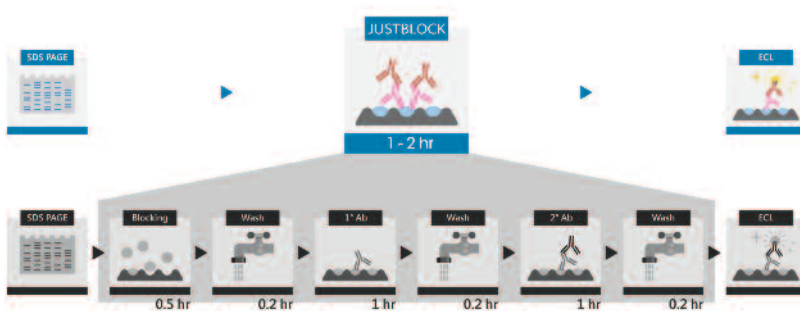
## KEY FEATURES

- Applications includes: native PAGE, SDSPAGE, isoelectric focusing, and 2D gels
- Sensitive – detection of protein concentration as low as 10 ng
- Speed - optimal protein bands visualization within 10 minutes
- Safe - absence of hazardous chemicals such as methanol, acetic acid, and other toxic agents

# Blocking Buffer

**JUSTBLOCK** is an all-in-one blocking solution for Western blot analysis. By all-in-one we refer to its capability to perform in only one step, blocking, primary and secondary antibodies hybridization as well as enhancing the signal developed from HRP (horseradish peroxidase) or AP (alkaline phosphatase) substrates. JUSTBLOCK therefore functions as both blocker and enhancer in Western analysis

## JUSTBLOCK: Western Blocking Solution and Signal Enhancer



## KEY FEATURES

- Time-saving 3 steps in one: Block the membrane and dilute 1ary & 2ary Abs in one step
- Enhance antibody signal: It shows a two- to five-fold increase in signal intensity for most protein targets, enabling low concentration proteins to be detected
- Universal antibody diluent: Ready-to-use dilution buffer for most 1ary & 2ary Abs
- Effective with any ECL substrates: the signal can be developed with both HRP (horseradish peroxidase) and AP (alkaline phosphatase) substrates
- Compatible with PVDF & NC membrane: Regardless of the pore size, JUSTBLOCK minimises the background from non-specific protein binding
- Improve protein detection: Improve the binding process of target proteins, so that specific antibodies can bind more effectively

### ORDERING INFORMATION

#### PROTEIN GEL STAINING

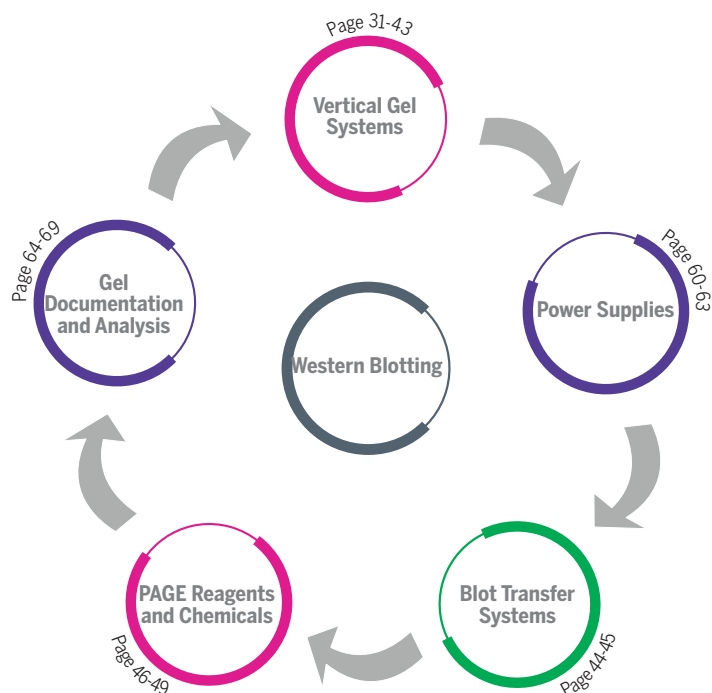
RubyProS	EZEE Rubypro protein staining kit: Regent A 50ml & Reagent B 50ml; total 100ml
RubyProL	EZEE Rubypro protein staining kit: Regent A 250ml & Reagent B 250ml; total 500ml
BLUEPRO	EZEE UltraBlue protein staining solution, 500ml

#### BLOCKING BUFFER

JUSTBLOCK	EZEE JUSTBLOCK Western Blocking solution and signal enhancer, 500ml
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# ECL Substrates for Western Blotting

The Lumi range of ECL substrates are luminol-based enhanced chemiluminescent substrates which produce sensitive signals and are compatible with antibodies conjugated with horseradish peroxidase (HRP).



For more information on Enhanced Chemiluminescence Reagents

LumiGO is an ECL substrate with stable light output for low picogram detection level. The formulation provides a low background for a high signal to noise ratio.

### Recommended antibodies dilutions

Primary: 1:500 - 1:5,000  
 Secondary: 1:20,000 - 1:100,000  
 (from 1 mg/mL stock solution)

### KEY FEATURES

- Low picogram detection
- Long signal duration
- Working solution stable for at least three days
- The best entry level ECL substrate on the market
- Stable for 1 year at room temperature. Product is shipped at ambient temperature

LumiPRO is our top performance product with an extremely high signal intensity and stable light output for low femtogram detection level. The formulation provides a low background for a high signal to noise ratio.

### Recommended antibodies dilutions

Primary: 1:5,000 - 1:100,000  
 Secondary: 1:100,000 - 1:500,000  
 (from 1 mg/mL stock solution)

### KEY FEATURES

- Low femtogram detection
- The ECL substrate with the highest signal on the market
- Working solution stable for at least three days
- Low antibody consumption to save money
- Working solution stable for three days at least 8 hours
- Stable for 1 year at room temperature. Product is shipped at ambient temperature

### ORDERING INFORMATION

ECLONE	LumiGO ECL substrate kit: 125ml Luminol/enhancer solution (A); 125ml Peroxide solution (B)
ECLULTRA	LumiPRO ECL substrate kit: 50ml Luminol/enhancer solution (A); 50ml Peroxide solution (B)