



FT-R2034A

## CooBlue MAX Protein Gel Stain

### Product Description

Name and Description	Product Number, Package Size
<b>CooBlue MAX Stain for Proteins in Gel</b> 1X Ready-to-use Colloidal Coomassie Stain for Proteins in Gel - optimized for analytical applications	<b>R2034A</b> , 500mL (for 20 minigels) <b>R2034B</b> , 4.5L (for 225minigels)
10X Concentrate	AXJTE0

### Storage:

+4°C, stable for long term for +1 year. Shipped at RT. DO NOT FREEZE. (H)  
Can be stored at Room Temperature.

### Features:

- Ready-to-use stain reagent
- Hands-Off! Stain and read directly:
  - Fast, One-step, One hour staining (12 minutes using microwave protocol)
  - Bands can be viewed directly in the staining tray
  - Destain, with water
- High Sensitivity, below 10 ng of Protein per Band

### Applications:

2D, SDS-PAGE, Native PAGE, Peptide analysis (Tricine gels with fixation step):

- protein staining for analytical purposes / proteomics
- protein staining to control the efficiency of protein transfer / blotting

### Introduction

Coomassie® Blue staining of proteins in SDS-PAGE gels is a daily procedure in many laboratories. It is popular among life science researchers, due to its good sensitivity and relative ease of use. Traditionally, Coomassie Blue staining requires methanol, acetic acid and phosphoric acid to fix, stain and destain, causing irritating and pungent odor, hazardous risks, and disposal problems.

**CooBlueFX PAX Stain** is a convenient, flexible, safer and superior alternative to traditional Coomassie Blue staining procedures.

- The simple "**hands-off**" staining/destaining procedure saves valuable time.
- After electrophoresis, **no prior fixation** of the gel is required.
- Based on a colloidal formulation, **staining is rapid**, within 60min, with no risk of overstaining in cases of overnight staining, and down 12min using the microwave protocol!
- The **proteins can be visualized directly**, before destaining. Washing with water is however recommended to get a clear gel with intense dark blue° stained proteins bands, hence enhancing sensitivity and getting nicer pictures.
- CooBlue Staining exhibits **high sensitivity**, below 10ng of protein per band (with scanning) making it ideal for most applications including SDS-PAGE, IEF and 2D gels, while being more safe.

CooBlue stained gels are compatible with MS analysis, sequencing of proteins from gels. However, de-staining is never 100%: **for complete destaining of the gel**, as required for re-staining, accurate MS analysis, blotting and electroelution of proteins, we recommend using CooBlue [#UP47255A](#) reagent or ProSave 5min Reversible Protein gel stain [#BP7121](#).

### Directions for Use

#### Staining Procedure for SDS-PAGE gel:

Before starting: allow the CooBlue FX protein staining solution to reach RT under continuous agitation.

Note: This protocol is optimised for 8x10cm<sup>2</sup> minigels 10% SDS-PAGE (1mm thick).

- **Prepare** the gel: Remove stacking gel from the separating gel.
- **(optional) : fixation**: Wash the gel with 300mL of 7% glacial acetic acid (v/v) for 15 minutes with gentle shaking. Discard solution.

- **Wash** then the gel with plenty of ultra-pure water for 15min, then discard solution and wash once more

Notes: SDS interferes with the staining procedure; so we recommend for optimal results,

- to use 300mL of ultra-pure water 3 x 5-10 minutes per minigels
- to wash longer if the thickness of gel (>2mm) or acrylamide percentage ratio (>15%) are important (see the time table below)
- for native gels (no SDS), a simple 5min pre-wash is usually sufficient.

- **Stain** for 1 hour with CooBlue Stain: Submerge the gel completely with CooBlue MAX.  
Gently shake tray.

Notes: The CooBlue stain should be well temperature-equilibrated / mixed before use for optimal performance. Close the 500mL vial immediately after use. It can be store at room temperature when used daily or weekly.

The reagent can be conveniently dispensed using appropriate pump [#T34711](#) / CooBlue in 4.5L container.

Use 20mL of CooBlue FX per minigel 8x10cm<sup>2</sup> (more may be needed depending on the tray), and gently shake.

Stain intensity reaches a maximum within approximately 1 hour. Gels may be stained overnight without increased background.

- **Read** the gel: Quick wash the gel with ultrapure water for immediate reading.

Note : The Gel can be read also after just discarding the stain buffer, but a quick wash is easy to do and better.

**(optional) Destain** for 3x10min in deionized water for optimal reading (clears the gel & enhances the band intensity color).

- **(optional)** The stained gel can be dried using Crack Free Solution [#U50450](#) (for permanent records, autoradiography,...)

#### Timetable for optimizing the removal of SDS from gels

Gel %	Time (with shaking)
Protein gel <14%	3 x 10 minutes in 300mL water
Protein gel 14%-16%	3 x 30 minutes in 300mL water
Protein gel >16%	x 60 minutes in 300mL water

#### Quick Microwave Procedure:

This quick procedure (only10-15min) uses a microwave to speed the staining, while preserving sensitivity (10ng BSA). It is optimized for 1.0mm mini-gels. (For 1.5 mm mini-gels, use the values in italic)

**Caution:** Use caution using the stain in a microwave oven. Do not overheat the staining solutions.

- After electrophoresis, place the gel in 100mL of ultra pure water in a loosely covered container and microwave on High (950 to 1100 watts) for 1 minute until the solution almost boils.
- Shake the gel on an orbital shaker for 1-2 minute (2 minutes). Discard the water.
- Repeat Steps 1 and 2 two more times.
- After the last wash, add 20mL (30mL) of CooBlue and microwave on High for 30 to 45 seconds (1 minutes) until the solution almost boils.
- Shake the gel on an orbital shaker until bands are developed - for ca. 5 minutes (10 minutes).
- Wash the gel in 100mL of ultra pure water for 10 minutes on a shaker.

#### Troubleshooting

Gel %	Time (with shaking)	Time (with shaking)
No band development	Gel is > 1 mm thick	Longer staining incubation
	Gel has high polyacrylamide concentration	Longer staining incubation
	SDS interference	Wash the gel with plenty of water before staining
Bands are faint	Lack of sensitivity / protein load	Increase protein load
Undesired bands	Protein contamination	Check gel / buffers preparation
High background	Protein contamination	Check gel / buffers preparation
Staining not homogenous	Bubbles, uncovered edges...	Check for incubation conditions, increase washing and staining volumes

#### Related products

See all [CooBlue products](#) including the

CooBlue Protein Gel stain [#UP47255A](#): the original version allowing the stain non fixed gels for protein recovery after electroelution (i.e. with preparative gels).

CooBlue FX-NoPreWash Protein Gel stain [#1B8100](#): an analytical version ( no fixation step, no pre-wash step, brighter and permanent staining)

CooBlue Blot-Membrane Protein Gel stain [#20078A](#):

- Pump dispenser [#T34711](#). This pump fits to the opening of the PP blue container of CooBlue 4.5L and delivers per push 10mL doses of reagent. It can be provided for free for your first order (please ask when ordering), or can be purchased separately.

\* Protein Electrophoresis in Agarose Gels NT-[47255g](#)

- [Crack free solution #U50450](#): to dry your gels without hassle of cracking.

- [ProSave 5min Protein gel stain](#) #BP7121: combines high sensitivity & max. flexibility (analytical, compatible with MS, elution, WB...)
- [LavaPurple Gel & Blot protein stain](#) #67433A: the highest sensitive protein gel stain (50ng protein) , by fluorescence ( MS compatible).
- High quality reagents for electrophoresis (acrylamides, buffers...). See the catalog.
- \* Other Coomassie based reagents. I.e. [CooAssay protein dosage kit](#): use the same Coomassie to quantitate proteins in solutions. See [BioSciences Innovations catalogue](#) and e-search tool.

## Ordering information

Further package sizes and pricing may be found at [www.interchim.com](http://www.interchim.com).

Please inquire for bulk quantities (availability, shipment conditions, etc).

For any information, please ask: Uptima / Interchim® Hotline: +33 4 70 03 73 06

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