

CooBlue Instant stains

Product Description

High quality protein stains for electrophoresis gel applications

cat.number : [47255A](#), 500ml
Name: CooBlue Instant stain
Optimized for analytical and extraction/MS applications

cat.number : [G4562A](#), 500ml
Name: CooBlue Instant FX stain
Optimized for analytical applications

Technical and Scientific Information

CooBlue is a high quality protein staining optimized for various applications.

Home made stainings generally produce strong binding to proteins that alter proteins. Proteins can hardly be extracted from gel, and remain stained or introduced contaminants interfere with further analysis.

- **Principle**

CooBlue Instant stain is based on the interaction of a modified Coomassie dye with proteins. Proprietary formulation allows the dye to be poorly colored in solution, while giving intense blue-violet color upon binding to proteins. As a result, gels can be read (protein band visualized) directly during the staining. Washing is not required, eliminating time consuming destaining usually required. Washing furthermore increases slightly the sensitivity of detection for more exigent applications.

The classic CooBlue Instant staining reagent (#47255) suits equally to analytical applications *, with optimal sensitivity, as well extraction and proteomics integrated applications.

Note: * When highest staining and permanency are required, CooBlue Instant FX stain is preferable

In the FX formulation (#G4562), a fixative agent allows the dye to enter better in the gel and to bind stronger. CooBlue Instant FX staining gives stronger and more permanent staining. Sensitivity is similar (equal or slightly increased depending on proteins). Stronger visibility makes this reagent dedicated to analytical applications, giving

- more permanent staining for those who store stained gels, f
- better data for those who scan the gel for quantitative measurements,
- better records for who photograph gels for more convenient and duplicable records.

Because CooBlue Instant stain (47255A) weakly binds to proteins, a subsequent silver staining can be easily performed for increased sensitivity. More interesting, further CooBlue staining, proteins can easily be eluted from gel by conventional or automated technique. Proteins are recovered in far better state, and can be analyzed by MALDI Mass Spectrometry, or even sequenced.

- **Quality**

CooBlue is prepared with ultrapure biochemicals according to controlled procedure to ensure best results. As a result, CooBlue suits stringent requirements of proteomics, with excellent consistency.

- Components of highest purity ensure lowest contaminants that interfere with some further application (see Applications).
- Reproducibility from lot to lot is important for quantitative measurement (protein quantity in each band is estimated after absorbance scanning of gel).

- **Safety**

CooBlue stains (#47255 and #G4562) are free of organic solvents. This makes their use safe, and environment friendly for disposal, when conventional Coomassie stainings are not.

Contact your local distributor

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Applications

- Analysis of proteins by electrophoresis (native, SDS-PAGE, 2-D...)

The first goal of protein staining is to obtain information on protein content. Polyacrylamide Gel Electrophoresis (PAGE) has given several reference techniques, giving accurate and reliable information, notably on molecular weight of proteins, even in complex mixtures. CooBlue Instant stains (#47255 and # G45620) suits native as well denatured gels, including popular SDS-PAGE, 2-D electrophoresis, IEF.

- Further stainings of gels

Although CooBlue staining usually is sufficiently sensitive, one might obtain additional information on the gel to corroborate or complement protein information given by CooBlue staining. Silver staining can be performed subsequently to CooBlue staining, allowing to detect new bands, proteins in lowest quantity that require an increased sensitivity, and glycoproteins that are better detected by silver technique than by Coomassie. If you showed such a compatibility with other stainings, let us send your results and get a free bottle of CooBlue !

- Extraction of proteins from polyacrylamide gels

CooBlue staining (#47255) is fully compatible with further elution of protein from gels. Simply wash the gel with water, and proceed as usual. If needed, inquire for product for such extraction.

- MS analysis

CooBlue (#47255) is compatible with various spectrometry analysis, in particular MALDI that has become very useful in proteomics. MS analysis gives effectively an accurate molecular weight, thus an informative characterization.

- Sequencing

CooBlue (#47255) is compatible with sequencing of proteins after elution from gel. Sequencing usually allows to characterize accurately the aminoacid sequence of polypeptidic chain ends or of fragments.

- Blotting

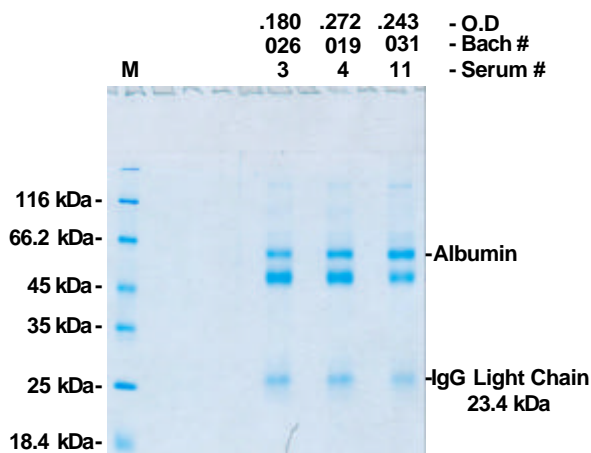
CooBlue #47255 is compatible with blotting techniques: thanks to slight fixation of proteins, the transfert of proteins from stained gels can be done without complete destaining.

- Control of protein transfert

For blotting techniques, proteins are transferred to a paper sheet. Electrotransfert of nitrocellulose, nylon, PVDF sheets is the more popular technique. CooBlue Instant stains allows to control quickly the absence of proteins in gels, thus correct transfert occurred, before further steps are engaged (saturation of protein binding sites by irrelevant blockers (inquire for Uptima saturating agents), then immunodetections (Wester-blotting) or probing by nucleic acids (Northern-, Southern-blotting). No more need to wait for time consuming and burrowing destaining required by conventionnal protein stains!

Applications

Staining of serum samples analysed by SDS-PAGE (r)



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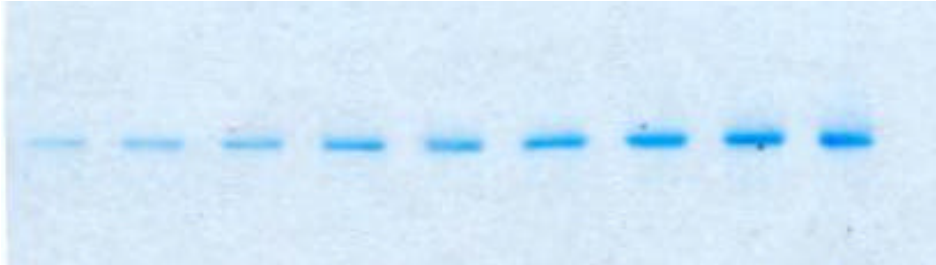
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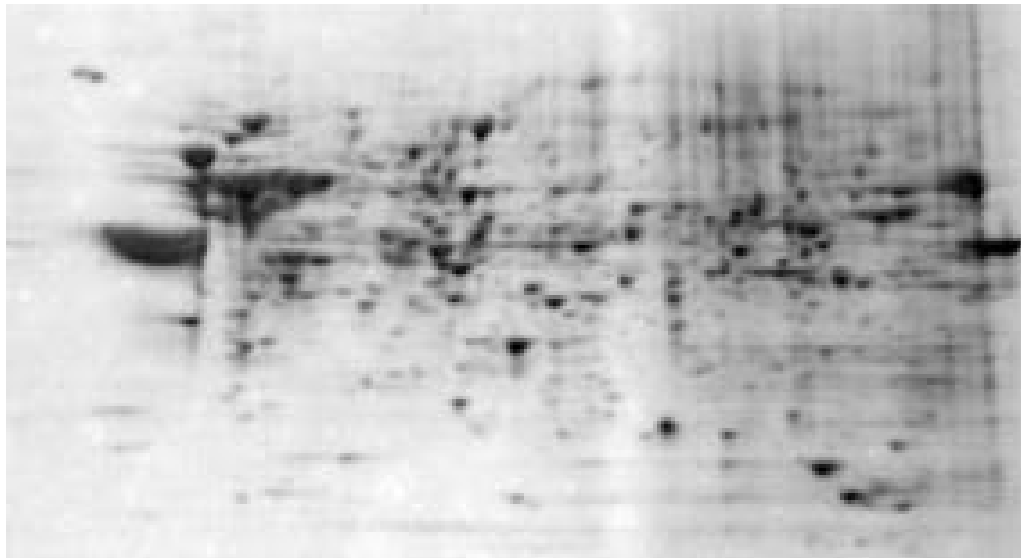
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Staining of serial dilutions of BSA analysed by SDS-PAGE (r)



10 (left), 30, 50, 70, 90, 100, 120, 140 and 160ng (right) of BSA are loaded on gel, analysed by SDS-PAGE and stained with CooBlue Instant FX stain #47255



Literature

CooBlue is validated by big companies involved in diagnostics, proteomics, QC/production
-New England Biolab

Contact uptima – Interchim for any question

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