

Stain Protein gel in one step

VisPRO 5 minutes Protein Stain Kit provides a quick and easy way to read your protein gels. Simply add the VisPRO solution to your gel and in less than 5 minutes the electrophoresis result is visible without using a UV transilluminator or expensive gel scanner.

VisPRO 5 minutes Protein Stain Kit applies the principle of zinc stain, a negative staining method. The formation of zinc-imidazole complex on polyacrylamide turns the gel to white, while the protein area prevent the stain and remain transparent.

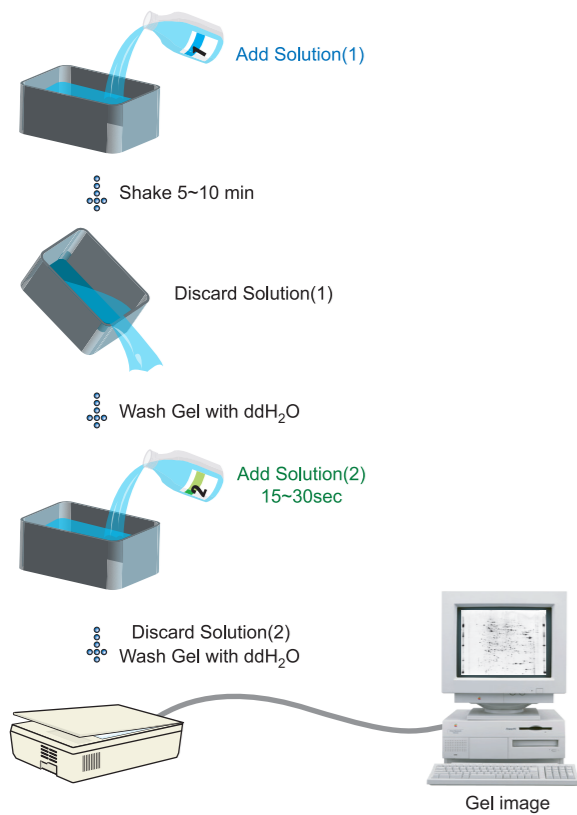
Ready to use

VisPRO 5 minutes Protein Stain Kit is ready to use. No dilution and preparation of other solution is required. VisPRO 5 minutes Protein Stain Kit is highly stable, non-toxic, and can be stored at room temperature for at least two year.

Complete staining in 5 minutes

Unlike most staining methods that require hours to days, VisPRO 5 minutes Protein Stain Kit can complete staining in minutes. After electrophoresis, gels are soaked directly into staining solution without acidic fixation. Protein bands or spots can easily be viewed at amazing nanogram level.

Gel in the Staining Box



No need to buy expensive instruments

The gel developed by VisPRO 5 minutes Protein Stain kit can be directly viewed by eyes. All you need is a deep color background or black staining box for visualization. Gel images can be simply documented by optical light flatbed scanners or any CCD cameras. UV transilluminator or expensive laser gel scanner are not required.

Excellent sensitivity

VisPRO 5 minutes Protein Stain Kit can detect proteins as little as 1 ng, comparable to silver and Sypro Ruby stain, and much more sensitive than Coomassie Brilliant blue stain. (Figure 1) Protein from microgram to nanogram can be visualized with good staining dynamic ranges. Unlike other staining methods requiring the interaction between dye molecules and proteins that generates the staining preference between protein species, the negative staining nature makes VisPRO 5 minutes Protein Stain Kit visualize all proteins.

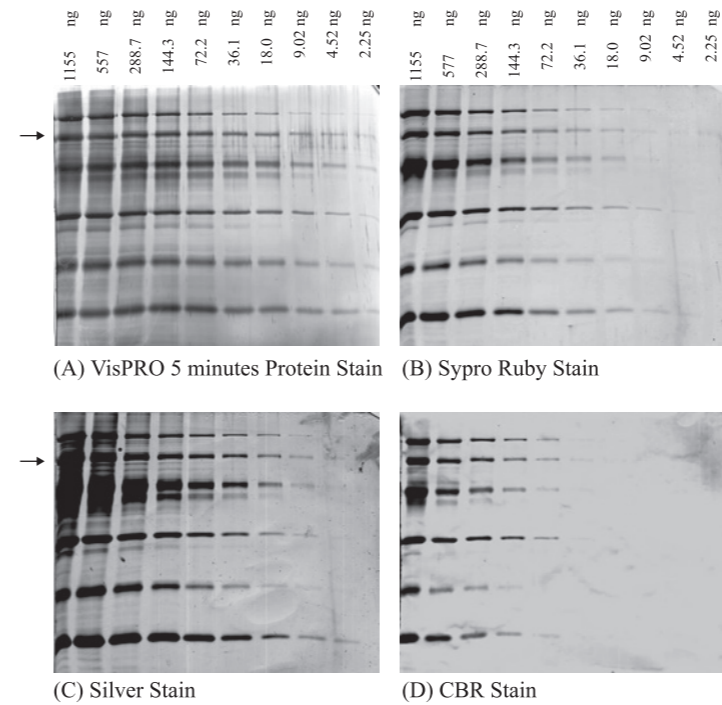


Figure 1. The comparison of staining sensitivity. The commercial protein markers (Amersham, GE healthcare) are used for testing. The numbers shown above the gels indicate the actual protein amount of bovine serum albumin (indicated by arrow). Unpublished data from Chen HM, 2005.

Fully compatible with downstream applications

VisPRO 5 minutes Protein Stain reaction can be completely erased. Stained gels can be re-stained by other staining methods. Besides, proteins in stained gels can be further eluted or electroblotted onto PVDF or nitrocellulose membranes. In addition, proteins on stained gel can be analyzed by mass spectrometry.

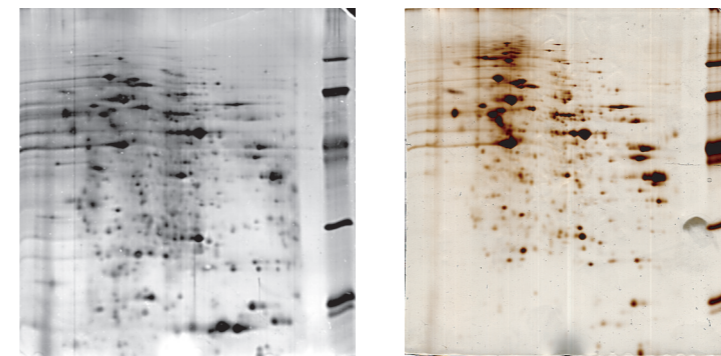


Figure 2. The comparison of staining results in 2D gel. (A) VisPRO 5 minutes Protein Stain kit (B) silver stain.

Application in current proteomics

VisPRO 5 minutes Protein Stain perfectly matches to current proteomic research. Generally, more protein spots can be detected in 2-DE gels by this robust staining method, compared to silver and Sypro Ruby staining (Figure 2). Moreover, the unfixing nature have it very ideal for subsequent analysis by mass spectrometry. Proteins developed by VisPRO 5 minutes Protein Stain usually have higher rate of good annotation.

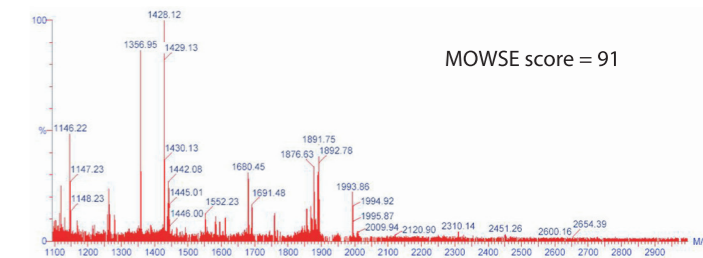


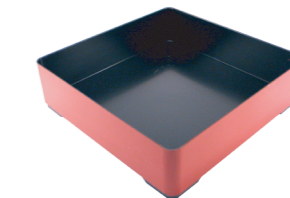
Figure 3. The MALDI-TOF spectrum of spots visualized by VisPRO 5 minutes Protein Stain kit. The spot of rabbit phosphorylase b (10 ng) was cut and subjected to mass spectrometry. Twenty-two of fifty signals are categorized as the tryptic fragments of phosphorylase b.

Other accessories



GLP01
Gel Lighting Plate(A4 Size)

BSB01
Black Staining Box(Small)
Size:130L*130W*40H mm



BSB02
Black Staining Box(Large)
Size:175L*175W*45H mm

Order information

VisPRO™ 5 minute Protein Stain Kit (1X)
VP01-125 125mL Solution I+125 mL Solution II
VP01-500 500mL Solution I+500 mL Solution II

VisPRO™ 5 minute Protein Stain Kit (5X)
VP05-125 125mL Solution I+125 mL Solution II
VP05-500 500mL Solution I+500 mL Solution II

VisPRO™ 5 minute Protein Stain Kit (10X)
VP10-1L 1L Solution I+1L Solution II

Comparison of staining methods

Methods	VisPRO 5 minutes Protein Stain	Sypro Ruby	Silver Stain	CBR Stain
Preparation of solutions	0 min	5 min	20 min	0 min
Fixing Step	0 min	1 hr	1hr~overnight	0 min
Stain	5 min	overnight	3 hr	30 min~ overnight
Image Display*	30 sec	30 min		30 min~ overnight
Total Time	5 min 30 sec	18 hr	4~20 hr	1hr~8hr
Irritated or toxic chemical	no	Acetic acid · Methanol	Acetic acid · Silver Nitrate · Glutaraldehyde	Acetic acid · Methanol
Sensitivity	<1 ng	1 ng	1 ng	50 ng
Quantitative range	1-100 ng	1-1000 ng	1-100ng	50-500 ng
Capability to downstream applications	Yes	Yes	No (Protein Cross link)	Yes but limit

*including operating · developing and destaining Time