

# protein blotting

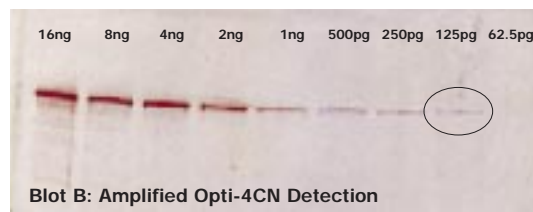
## AMPLIFIED OPTI-4CN KITS

### Amplified Opti-4CN Colorimetric Kits Offer:

- Sensitivity equal to chemiluminescence with detection in the picogram range.
- No film, no darkroom, no hassle, with the results read right on the blot.
- An optimized amplification system for best results.
- A choice of a substrate kit or a complete detection kit so you order only the components you need.

## Colorimetric Detection with Chemiluminescence Sensitivity

Bio-Rad's Amplified Opti-4CN™ kit is an optimized HRP-activated amplification system that provides the highest colorimetric sensitivity available for western blots. Our proprietary amplification reagent improves colorimetric sensitivity to a level equal to chemiluminescent systems. The simplicity of colorimetric detection allows you to make the best result possible because you control the amount of color development right on the blot itself. Results appear quickly with development times typically less than 10 minutes. Amplified Opti-4CN substrate kit is available separately or packaged with a conjugated secondary antibody (Goat-anti-Mouse or Goat-anti-Rabbit) for added convenience and economy. Substrate and Detection kits contain sufficient detection reagents for 2500 cm<sup>2</sup> of membrane or approximately 50 mini blots.



### Equivalent sensitivity between Amplified Opti-4CN and chemiluminescent detection

A: two-fold dilution series of human transferrin beginning with 16 ng in the first lane was loaded onto 10% polyacrylamide Ready Gels. Following electrophoresis, the proteins were blotted to nitrocellulose membrane, blocked and incubated with anti-transferrin and goat anti-rabbit HRP antibodies. Blot A: incubated in a luminol-based chemiluminescent substrate for 60 seconds and exposed to film for 60 seconds per the manufacturer's instructions. Blot B: incubated in Amplified Opti-4CN substrate for 10 minutes, the most sensitive signal developing at 125 pg.

Kit Description	Opti-4CN Substrate Kit	Amplification Reagent, Streptavidin-HRP, Blocker, 10X PBS, Amplification Diluent	Goat-anti-Rabbit-HRP Conjugate 0.5 ml	Goat-anti-Mouse-HRP Conjugate 0.5 ml
Amplified Opti-4CN Substrate Kit	●	●		
Amplified Opti-4CN Detection Kit Goat-anti-Rabbit	●	●	●	
Amplified Opti-4CN Detection Kit Goat-anti-Mouse	●	●		●

### Ordering Information

Catalog No.	Description
170-8238	<b>Amplified Opti-4CN Substrate Kit</b>
170-8239	<b>Amplified Opti-4CN Detection Kit, Goat-anti-Rabbit</b>
170-8240	<b>Amplified Opti-4CN Detection Kit, Goat-anti-Mouse</b>

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## OPTI-4CN KITS

### Opti-4CN Kits Offer:

- A 4-8 fold increase in sensitivity. Allows detection of low copy proteins and smaller loads of valuable sample.
- Low background and high signal-to-noise results in a better looking blot.
- A choice of a substrate kit or a complete detection kit so you order only the components you need.
- Convenient kit packaging saves time and money

## The Highest Sensitivity in 4CN Colorimetric Detection

Bio-Rad's Opti-4CN™ is a significantly improved, more sensitive 4-chloro-1-naphthol (4CN) chemistry that provides the highest sensitivity available in 4CN detection. Opti-4CN increases sensitivity 4-8 fold over regular 4CN substrates yet uses the same simple and familiar protocols. Simply substitute Opti-4CN and obtain clearly superior results (figures A & B). Opti-4CN substrate is available separately or packaged with a conjugated secondary antibody (Goat-anti-Mouse or Goat-anti-Rabbit) for added convenience and economy. Opti-4CN Substrate and Detection kits contain sufficient detection reagents for 2500 cm<sup>2</sup> of membrane or approximately 50 mini blots.



### Relative Sensitivity of 4CN and Opti-4CN Substrate

A) 4CN and B) Opti-4CN substrate. Two identical 10% Ready Gels (SDS\_PAGE) were loaded with a dilution series of human transferrin. Transferred to Nitrocellulose and detected with anti-transferrin and goat-anti-rabbit-HRP.

Kit Description	Opti-4CN Substrate 12.5 ml	Opti-4CN Diluent Concentrate 62.5 ml	Goat-anti-Rabbit-HRP Conjugate 0.5 ml	Goat-anti-Mouse-HRP Conjugate 0.5 ml
Opti-4CN Substrate Kit	●	●		
Opti-4CN Detection Kit Goat-anti-Rabbit	●	●	●	
Opti-4CN Detection Kit Goat-anti-Mouse	●	●		●

### Ordering Information

Catalog No.	Description
170-8235	Opti-4CN Substrate Kit
170-8236	Opti-4CN Detection Kit, Goat-anti-Rabbit
170-8237	Opti-4CN Detection Kit, Goat-anti-Mouse

This product is covered by US Patent 5,583,001 and pending patent applications.  
Purchase of this product includes a license for use in non-commercial research applications only.

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