cytodiagnostics

PRODUCT DATA SHEET

Silver Enhancer Kit for Membrane Applications

Catalog No. SR-01-02 Size: 500ml

Description

Kit for silver enhancement of gold, silver and nanourchin conjugate labeled samples in dot blot and Western Blots. Using this straightforward kit, sensitivity in the picogram range can be achieved in 5-8 minute staining time while maintaining a low background.

Amplification of the gold, silver and nanourchin nanoparticle label is a result of the deposition of silver on the nanoparticle surface during the reaction and increases the sensitivity of the nanoparticle conjugate labeling up to 100-fold. This allows for detection of scarce targets.

Storage

This product should be stored at 2-8°C and not exposed to extreme heat or light. DO NOT FREEZE. The product is stable for 4 months when stored under these conditions.

Product Safety and Handling

This product is for R&D use only, not for drug, household, or other uses. Please review the material safety datasheet (MSDS) available online for proper safety and handling procedures.

Suggested Procedure

1. Apply the nanoparticle conjugated primary antibody, or primary antibody followed by a secondary nanoparticle conjugate according to protocol.

2. Wash according to protocol.

3. Mix equal volumes of Solution A and Solution B into a plastic tube. The recommended amount is 3-5 ml/strip or 50 - 100 ml/sheet

4. Incubate the strip or sheet with the prepared silver enhancer solution.

NOTE: The incubation time may need to be optimized depending on the assay system.

The development time is ~ 30-45 minutes.

5. When suitable color intensity is observed, stop the reaction by rinsing in deionized water using a continuous stream of water for 2 - 5 minutes.

6. Air-dry the membrane and store in sealed plastic.

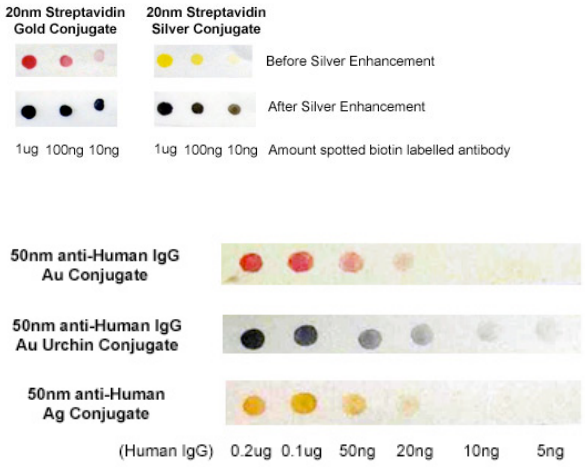

Figure 1. *Example dot-blot assay for Cytodiagnostics streptavidin gold conjugate (top left) and our streptavidin silver conjugate (top right) before and after enhancement using Cytodiagnostics silver enhancement kit for membranes. Bottom picture illustrates and highlights the difference in appearance (color) of 50nm anti-human IgG noble metal nanoparticle conjugates prepared using NHS-activated gold nanoparticles, NHS-activated gold nanourchins, and NHS-activated silver nanoparticles, respectively.*

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Troubleshooting

Problem	Possible Cause	Corrective Measure
Excessive Development and/or Background	Silver Enhancer Incubation time too long.	Shorten/optimize Silver Enhancer incubation time.
Poorly Defined Bands	SDS-Page not optimized.	Optimize gel electrophoresis conditions.

References

1. Danscher, G., Hacker, G., et. l., J. Histotechnology, 16(3):201-207, 1993.

2. Hacker, G., Grimelius, L., et. l., J. Histotechnology, 11(4):213-221, 1988.

3. Holgate, C., Jackson, P., Cowen, P., and Bird, C., J. Histo/Cytochemistry, 31(7):938-944, 1983.

4. Danscher, G., J. Histochemistry, 71:1-16, 1981

Ordering Information

For ordering call 866-344-3954 or visit us online at www.cytodiagnostics.com

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