

# Silver Enhancer Kit

for Microscopy Applications

**Catalog No.**  
**50-22-01**

**Size**  
**50 mL**



## DESCRIPTION

Silver Enhancer Kit for Microscopy Applications is a sensitive and simple method for the enhancement of gold labeled samples when viewed using a light microscope. The resulting brown/black stain is permanent and offers sharp resolution and contrast with colored counterstains.

## CONTENTS

This kit contains:

Catalog No. 50-22-03, Silver Enhancer Solution A, 25 mL (Red Cap)

Catalog No. 50-22-04, Silver Enhancer Solution B, 25 mL (Blue Cap)

**Note:** Discard either solution if they are no longer colorless.

## STORAGE/STABILITY

Store at 2 – 8°C. Stable for a minimum of 4 months from date of receipt when stored at 2 – 8°C. **DO NOT FREEZE.** Do not expose to extreme heat or light.

## APPLICATIONS

The Silver Enhancer Kit for Microscopy Applications is suitable for use in enhancing the sensitivity of gold conjugates used in light microscopy applications.

## PROCEDURE

1. If using paraffin embedded tissue sections, deparaffinize according to any of KPL's 5 nm Gold Conjugate Data Sheets.
2. Apply the gold conjugated primary antibody or primary antibody followed by KPL's Gold Conjugated secondary antibody (See Related Products), incubate as instructed.
3. Wash as instructed.
4. Mix equal volumes of Solution A and Solution B into a plastic tube. The recommended amount per slide is 500 µL - 1.0 mL/slide.
5. Incubate the slide with Silver Enhancer.

**NOTE:** The incubation time may need to be optimized depending upon the assay system. As a brownish color is seen, just before the color turns black, the reaction should be stopped.

6. After suitable color intensity is observed, stop the reaction by rinsing the slide in deionized water using a squirt bottle three times for 5 minutes each.

**NOTE:** Direct the stream of water on the slide and not the tissue.

7. Counterstain, if desired, with Eosin, Contrast Green or other appropriate counterstain (See Related Products) for 30 - 60 seconds.
8. Rinse with deionized water for 1 minute.

9. Dehydrate through graded ethanol for 3 minutes each in 20%, 40%, 80% and 100% EtOH. **NOTE:** Floating sections or whole mounts may be fixed to slides by drying under low heat followed by a 1 minute rinse in 95% ethanol.
10. Place the sample into two washes of xylene or a xylene substitute, for 1 minute each.
11. Air dry thoroughly.
12. Mount slides in an organic mounting media.

## TROUBLESHOOTING GUIDE

Problem	Possible Cause	Corrective Measure
Excessive Development and/or Background	Silver enhancer incubation time too long.	• Shorten silver enhancer incubation time
Floating Precipitate	Excess antibody; reaction too fast.  Silver enhancer incubation time too long.	• Dilute primary antibody and/or gold conjugate.  • Optimize silver enhancer time.
Purple or Other Color	Excess counterstain.	• Shorten counterstain incubation time.

## PRODUCT SAFETY AND HANDLING

See MSDS (Material Safety Data Sheet) for this product.

## REFERENCES

1. Danscher, G., Hacker, G., et. al., *J. Histotechnology*, 16(3):201-207, 1993.
2. Hacker, G., Grimelius, L., et. al., *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., *Histochemistry*, 71:1-16, 1981.

## RELATED PRODUCTS

Silver Enhancer Kit for Membrane Applications	Catalog No. 50-22-02
Gold Labeled goat anti-Human System, 5 nm	Catalog No. 58-10-06
Gold Labeled goat anti-Mouse System, 5 nm	Catalog No. 58-18-06
Gold Labeled goat anti-Rabbit System, 5 nm	Catalog No. 58-15-06
Gold Labeled goat anti-Biotin System, 5 nm	Catalog No. 58-40-06
Gold Labeled Streptavidin System, 5 nm	Catalog No. 58-30-06
Gold Labeled Protein G System, 5 nm	Catalog No. 58-51-00
Eosin Y, 10 X Concentrate	Catalog No. 71-02-01
Contrast Green	Catalog No. 71-00-11

See KPL's catalog for a wide selection of antibodies and immunohistochemistry substrates.

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