

Product Datasheet

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Optional Metal Enhanced DAB Substrate Kit

Prod. No.: K107

Pkg. Size: 300 ml

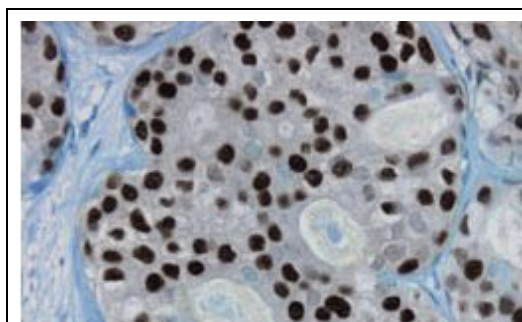
Storage: DAB Stock Solution -20°C
Remaining reagents 4°C

Detailed storage instructions below.

MSDS

Description

3,3'-Diaminobenzidine (DAB) is the most commonly used substrate for demonstrating the presence of horseradish peroxidase in immunohistochemistry or immunoblotting. It produces a stable water and alcohol insoluble reddish brown product. This effect is enhanced by modifying the DAB solution with the addition of metal ions to produce a more dense reaction forming a localized deep blue/black precipitate.^{1,2} Leinco's Metal enhanced DAB Substrate Kit is a stable solution developed to give enhanced color reaction with low background. The reagents supplied are sufficient for making 300ml working solution.



Metal enhanced human Estrogen Receptor staining

Kit Components

1. 6 ml Buffer Stock Solution
2. 12 ml Soluble DAB Stock Solution
3. 6 ml Hydrogen Peroxide Stock Solution
4. 6 ml Enhancing Stock solution

Hazard Description

Warning: As DAB and nickel are suspected carcinogens care should be taken in handling and disposal of the working solution. Gloves, lab coats and good laboratory procedures are necessary when using the reagents. For disposal the working solution is discarded in 3% potassium permanganate (KMNO₄) and 2% sodium carbonate in distilled water. Wash out all containers used for substrate staining with this solution. Dispose according to local regulations.

Working Solution

1. In 5ml distilled water, add 100 µl (2 drops) of Buffer Stock Solution.
 2. Add 200 µl (4 drops) of DAB Stock Solution.
 3. Add 100 µl (2 drops) of Hydrogen Peroxide solution. Mix well.
 4. If metal enhancement is desired, add 100 µl (2 drops) of Metal Enhancing Stock Solution. Mix well.
- This working solution must be used within 6 hours of preparation.*



Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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Direction For Product Use

FOR TISSUE SECTIONS

1. Add the working solution of DAB and incubate at room temperature for 15 seconds or until color develops.
2. Wash off excess DAB under running water for 5 mins.
3. Counterstain and mount in aqueous or dry medium.

FOR IMMUNOBLOTTING

1. Add the working solution of DAB and incubate at room temperature for 15 seconds or until color develops.
2. Remove excess DAB with two washes in distilled water for 10 mins.
3. Air dry and store in a dark place.

FOR DOUBLE STAINING

Note: It is important to stain the tissue for the first antigen with the metal enhancement.

1. Process the tissue section for labeling the first antigen with peroxidase.
2. Stain with DAB Substrate Kit with metal enhancement.
3. Wash well in distilled water for 5 minutes.
4. Process the tissue section for labeling second antigen with peroxidase.
5. Stain with DAB Substrate kit without metal enhancement.
6. Wash off excess DAB under running water.
7. Counterstain and mount in aqueous or dry medium.

DAB without enhancement will produce a reddish brown precipitate and the Metal Enhancing solution will produce a dark blue/black colored precipitate.

Storage and Stability

Store DAB Stock Solution $\leq -20^{\circ}\text{C}$. The remaining reagents are stored at 4°C

Country of Origin

USA

References

1. (1981) *J. Histochem. Cytochem.*, **Vol.29, No.6**:775
2. (1989) *J. Clin. Pathol*, **42**:875-880

Related Products

[Immunohistochemistry](#)

UltraAvidinTM-HRPO ([Leinco Prod. No.: A106](#))

Streptavidin-HRPO ([Leinco Prod. No.: S554](#))

Goat Anti-Mouse IgG (H&L)-HRPO ([Leinco Prod. No.: M114](#))

Goat Anti-Human IgG (H&L)-HRPO ([Leinco Prod. No.: H603](#))

Goat Anti-Armenian Hamster IgG (H&L)-HRPO ([Leinco Prod. No.: A128](#))

Goat Anti-Rabbit IgG (H&L)-HRPO ([Leinco Prod. No.: R1190](#))

Goat Anti-Rat IgG (H&L)-HRPO ([Leinco Prod. No.: R1215](#))



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