## **Detection of S100 in Formalin-Fixed, Paraffin-Embedded in Mouse Tissue**

## **Reagent and Antibody Information**

1X Wash Buffer 3% Hydrogen Peroxide 1% BSA Diluent DAB Chromagen Hematoxylin

Blocking Serum: Normal Goat Serum Jackson Immunoresearch Laboratories, Inc. West Grove, PA 19390 www.jacksonimmuno.com 1-800-367-5296 Catalog # 005-000-121

Avidin / Biotin Blocking Kit Vector Laboratories, Inc. Burlingame, CA 94010 <u>www.vectorlabs.com</u> 1-800-227-6666 Catalog # SP-2001

Primary Antibody: Rabbit Polyclonal Antibody To S100 Protein (Ab-2) Lab Vision / Thermo Fisher Scientific Fremont, CA 94539 www.labvision.com 1-800-828-1628 Catalog # RB-044-A1

Negative Control Serum: Normal Rabbit Serum Jackson Immunoresearch Laboratories, Inc. West Grove, PA 19390 www.jacksonimmuno.com 1-800-367-5296 Catalog # 011-000-001

Secondary Antibody: Biotinylated Goat Anti-Rabbit IgG (H+L) Vector Laboratories, Inc. Burlingame, CA 94010 www.vectorlabs.com 1-800-227-6666 Catalog # BA-1000

Label Complex: Vectastain Elite ABC Kit (Standard) Vector Laboratories, Inc. Burlingame, CA 94010 www.vectorlabs.com 1-800-227-6666 Catalog # PK-6100

## **Staining Procedure**

Positive Control Tissue: Skin Stain Localization: Cytoplasmic

1. Deparaffinize and hydrate slides through the following solutions:

Solution	Repetitions	Time
Xylene	2 times	5 minutes
100% Ethanol	2 times	3 minutes
95% Ethanol	2 times	3 minutes
1X Wash Buffer	2 times	5 minutes

- 2. Quench endogenous peroxidase by placing the slides in 3% hydrogen peroxide for 15 minutes.
- 3. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each.
- 4. Block with 5% Normal Goat Serum for 20 minutes at room temperature. Lot #\_\_\_\_\_ Date Reconstituted\_\_\_\_\_

DO NOT RINSE SLIDES. CONTINUE TO AVIDIN-BIOTIN BLOCK.

5. <u>Avidin / Biotin Blocking Kit</u> Lot #\_\_\_\_\_ Exp. Date\_\_\_\_ New Kit: yes / no Apply avidin block for 15 minutes at room temperature. Quick rinse in 1X Wash Buffer. Apply biotin block for 15 minutes at room temperature.

## DO NOT RINSE SECTIONS WITH BUFFER BEFORE ADDING PRIMARY ANTIBODY. ONLY WIPE EXCESS BLOCK.

6. Apply the primary antibody at a 1:500 dilution, and incubate for 30 minutes at room temperature. Lot #\_\_\_\_\_ Exp Date \_\_\_\_\_

For negative control slides, dilute the protein concentration of the normal rabbit serum to match that of the primary antibody. Make a 1:500 dilution from this normalized serum, and apply to the slides. Incubate for 30 minutes at room temperature. Lot #\_\_\_\_\_ Date Reconstituted\_\_\_\_\_\_

- 7. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each.
- Apply the goat anti-rabbit secondary antibody at a 1:500 dilution, and incubate for 30 minutes at room temperature. Lot #\_\_\_\_\_ Date Reconstituted\_\_\_\_\_
- 9. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each.
- 10. Apply the label complex from the Standard Elite Kit, and incubate for 30 minutes at room temperature. (Prepare at least 30 minutes prior to use.)

Exp. Date\_\_\_\_\_ New Kit: yes / no 11. Rinse slides in 2 changes of 1X Wash Buffer for 5 minutes each.

- 12. Apply the DAB chromagen, and incubate in the dark for 6 minutes at room temperature. (Add 1 drop of DAB per ml of substrate) Lot #\_\_\_\_\_ Exp. Date\_\_\_\_\_ New Kit: yes / no
- 13. Rinse the slides in tap water 3 minutes.
- 14. Counterstain with Harris Hematoxylin for 20 seconds.
- 15. Rinse the slides in tap water until water is clear.
- 16. Gently agitate slides in 1X Wash Buffer until they turn blue.

17. Dehydrate through the following solutions:

Solution	Repetitions	Time
95% Ethanol	1 change	3 minutes
100% Ethanol	3 changes	3 minutes
Xylene	2 changes	5 minutes

18. Coverslip

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