Detection of Terminal Deoxynucleotidyl Transferase (TdT) in Formalin-Fixed, Paraffin-Embedded Mouse Tissue

Reagent and Antibody Information

1X Wash Buffer 3% Hydrogen Peroxide 1% BSA Diluent 1X EDTA 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 Anti-Terminal Deoxynucleotidyl Transferase (TdT) Dakocytomation Corporation Carpinteria CA 93013 www.dakousa.com 1-800-235-5763 Code No. A3524

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: Thymus (T-cells) Stain Localization: Nuclear

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. <u>Heat-Induced Epitope Retrieval Using The Decloaker</u>

Add 500 ml of distilled water to the pan inside the decloaker. Place a full rack of slides into a Tissue Tek® container with 200 ml of 1X EDTA (Insert blank slides into any empty slots in the rack to ensure even heating of slides) Place the container stably inside the pan and decloak for 5 minutes. *Maximum Pressure* ______ Depressurize for 10 minutes. Remove pan top and cool for 10 minutes. *Temperature Before Cooling Slides*______ Rinse the slides in 2 changes of distilled water for 3 minutes each time.

- 5. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each time.
- 6. Block with 10% Normal Goat Serum for 20 minutes at room temperature. Lot #_____ Date Reconstituted_____

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

7. <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.

8. Apply primary antibody at a 1:20 dilution, and incubate for 1 hour 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 1:20 dilution from this normalized serum, and apply to the slides. Incubate for 1 hour at room temperature. Lot #_____ Date Reconstituted_____

- 9. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each time.
- 10. Apply the goat anti-rabbit secondary antibody at a 1:500 dilution, and incubate for 30 minutes at room temperature.
 Lot # Date Reconstituted
- 11. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each time.
- 12. 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
- 13. Rinse the slides in 2 changes of 1X Wash Buffer for 5 minutes each time.
- 14. 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
- 15. Rinse the slides in tap water 3 minutes.
- 16. Counterstain with Harris Hematoxylin for 20 seconds.
- 17. Rinse the slides in tap water until water is clear.
- 18. Gently agitate slides in 1X Wash Buffer until they turn blue.
- 19. Dehydrate through the following solutions:

Solutions	Repetitions	Time
95% Ethanol	1 time	3 minutes
100% Ethanol	3 times	3 minutes
Xylene	2 times	5 minutes

20. Coverslip