Detection of Oct-4 in Formalin-Fixed, Paraffin-Embedded Human Tissue

Reagents

1X Automation Buffer
3% Hydrogen Peroxide
Antibody Diluent
Citrate Buffer
DAB Chromagen
Hematoxylin

Antibody Information

Blocking Serum: Normal Horse Serum
Jackson Immunoresearch Laboratories, Inc.
West Grove, PA 19390
www.jacksonimmuno.com
1-800-367-5296
Catalog # 008-000-001

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

Primary antibody: Mouse monoclonal Oct-4 IgG2b
Santa Cruz Biotechnology
Santa Cruz, CA 95060
www.scbt.com
1-800-457-3801
Catalog # sc-5279

Negative control serum: Normal Mouse Serum
Jackson Immunoresearch Laboratories, Inc.
West Grove, PA 19390
www.jacksonimmuno.com
1-800-367-5296
Catalog # 015-000-001

Secondary antibody: Biotinylated Horse anti-mouse IgG
Vector Laboratories, Inc.
Burlingame, CA 94010
www.vectorlabs.com
1-800-227-6666
Catalog # BA-2001

Label antibody: Peroxidase–conjugated Streptavidin SS Label
Biogenex
San Ramon, CA 94583
www.biogenex.com
1-800-421-4149
Catalog # HK330-9K

Staining Procedure

Positive Control Tissue: Teratoma
Stain Localization: Nuclear

Deparaffinize and hydrate slides through the following solutions.

Xylene	2 times	5 minutes
100% Ethanol	2 times	3 minutes
95% Ethanol	2 times	3 minutes
1X Automation Buffer	2 times	5 minutes

1. Quench endogenous peroxidase by placing slides in 3% hydrogen peroxide for 15 minutes.

2. Rinse slides in 2 changes of 1X Automation Buffer for 5 minutes each.

3. Unmasking technique using the decloaker.
   Add 500 ml distilled water to the pan of the decloaker.
   Place full rack of slides in 200 ml of 1X citrate buffer and place in the decloaker.
   Decloak for 5 minutes. Pressure_____
   Depressurize for 10 minutes.
   Remove pan top and cool for 10 minutes. Temperature before cooling_____
   Rinse in distilled water twice for 3 minutes each.

4. Rinse slides in 2 changes of 1X Automation Buffer for 5 minutes each.

5. Block with 10% Normal Horse Serum for 20 minutes at room temperature.
   Lot#_____ Reconstituted Date_____

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

6. Apply the Avidin Biotin Blocking Kit
   Lot#_____ Exp Date_____New Kit: yes / no
   Apply avidin block - 15 minutes at room temperature.
   Quick rinse in 1X Automation Buffer.
   Apply biotin block - 15 minutes at room temperature.
   No wash, wipe excess block and apply primary antibody

   DO NOT RINSE SLIDES WITH BUFFER BEFORE ADDING PRIMARY ANTIBODY.

7. Apply primary antibody (Oct-4) at a 1:100 dilution and incubate overnight at 4°C.
   Lot#_____ Exp Date _____

   For negative control slides, normalize the protein concentration of the normal mouse serum to match the protein concentration of the primary antibody (Oct-4) and use this to make a 1:100 dilution. Apply to slides and incubate overnight at 4°C.
   Lot#_____ Reconstituted Date _____

**********Next Day**********

8. Bring slides up to room temperature in 1X Automation Buffer for at least 15 minute.

9. Apply the biotinylated horse anti-mouse secondary antibody at a 1:1000 dilution and incubate for 30 minutes at room temperature.
   Lot#_____ Reconstituted Date_____

10. Rinse slides in 2 changes of 1X Automation Buffer for 5 minutes each.

11. Apply Biogenex SS Label and incubate for 30 minutes at room temperature.
    Lot#_____ Exp Date _____

12. Rinse slides in 2 changes of 1X Automation Buffer for 5 minutes each.

13. Apply liquid Dako DAB Chromagen for 6 minutes in the dark.
    (Add 1 drop of DAB per ml of substrate)
    Lot#_____ Exp. Date_____ New Kit: yes / no

14. Rinse in tap water 3 minutes.

15. Counterstain with Modified Harris Hematoxylin for 20 seconds.

16. Rinse in tap water until water is clear.

17. Gently agitate slides in 1X Automation buffer until they turn blue.

18. Dehydrate through the following solutions.

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

19. Coverslip

Updated 12/19/06