

## IMUNOHISTOCHEMISTRY(PARAFFIN)(IHC-P)

**Important:** Please refer to the APPLICATIONS section on the front page of product datasheet or product webpage to determine whether a product is validated and approved for use on paraffin-embedded (IHC-P) tissue sections.

**Note:** Please see product webpage for appropriate antibody dilution, diluent and unmasking solution.

### Solutions and Reagents

- 1) Acetone
- 2) Ethanol, anhydrous denatured, histological grade (100% and 95%).
- 3) Deionized water (dH<sub>2</sub>O).
- 4) Hematotoxylin
- 5) Xylene
- 6) 10X TBS
- 7) Wash Buffer TBST
- 8) Antibody Diluent
- 9) 10 mM Sodium Citrate Buffer
- 10) 3% Hydrogen Peroxide
- 11) Blocking Solution
- 12) ABC Reagent
- 13) Diaminobenzidine (DAB) Substrate
- 14) Mounting Medium

### Blocking step

- 1) Incubate sections with 3-10% normal serum from the same species as the secondary antibody, for 30 minutes to block non-specific binding of immunoglobulin.
- 2) Remove blocking solution.

### Primary antibody incubation

All steps should be performed in a moist environment.

- 1) Dilute the primary antibody in blocking solution. If no dilution is suggested, begin testing at 1:10, 1:100 and 1:200.

- 2) Incubation overnight at 4°C.
- 3) Remove antibody solution. Wash 3 x 5 minutes in PBS, pH 7.4.
- 4) If the primary antibody is HRP-conjugated, proceed to Color Development.

### **Secondary antibody incubation**

- 1) Dilute the biotin-conjugated secondary antibody in blocking solution according to the recommended dilution. Incubate 30-60 minutes at RT.
- 2) Removed secondary antibody solution. Wash slides 3 x 5 minutes in wash buffer.

### **Development**

- 1) Add streptavidin-horseradish peroxidase reagent to each section and incubate for 30 minutes at RT.
- 2) Remove ABC reagent. Wash sections 3x in wash buffer for 5 minutes each.
- 3) Apply the DAB solution to cover the sections completely in a moist environment. Incubate for 5-15 minutes at RT. Alternatively, observe the slide under a microscope to determine optimal color intensity of the insoluble precipitate.
- 4) As soon as color develops, stop the reaction by gently flushing with dH<sub>2</sub>O.
- 5) Counterstain tissue as desired with Hematoxylin & Eosin to define antigen proximity to normally expected structures.
- 6) Wash the slides with dH<sub>2</sub>O.

### **Dehydration and coverslip application**

- 1) Dehydrate the sample for storage using a series of methanol or ethanol graded concentrations: 50% (2 x 5 min), 75% (2 x 5 min), and finally 100% (2 x 5 min).
- 2) Repeat in xylene, incubating sections two times for 10 seconds each.
- 3) Allow the slide to air dry.
- 4) Mount coverslips using appropriate mounting media.