3050 Spruce Street, Saint Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com



# **Immunohistochemistry Procedure**

### **Product Description**

The Prestige Antibodies® are subjected to a standardized test procedure using specially designed tissue microarray (TMA) slides.

### **Preparation Instructions**

#### Deparaffinization

Paraffin sections of 4  $\mu m$  thickness are baked overnight at 50 °C. Prior to immunostaining, deparaffinization and hydration are done in xylene and graded ethanol to distilled water. During hydration, a 5 minute blocking for endogeneous peroxidase is done with 0.3% (v/v)  $H_2O_2$  in 95% ethanol.

Wash Buffer – working wash buffer contains 0.2% TWEEN® 20.

#### **Procedure**

## Standard Antigen Retrieval Method

Heat Induced Epitope Retrieval (HIER) is performed by heating the TMA slides immersed in retrieval solution: 10 mM sodium citrate buffer, pH 6.0, with 1 mM EDTA, at 125 °C for 4 minutes in a pressure boiler. After boiling is completed, slides remain in the pressure boiler and are allowed to cool down to 90 °C. The total processing time is ~45 minutes.

# Alternative Antigen Retrieval Methods

- 1. HIER performed with retrieval buffer, pH 9.
- Enzymatic Antigen Retrieval Enzymatic retrieval is performed by incubation of the TMA slides with Proteinase K for 10 minutes at room temperature (RT).

# Standard primary antibody dilutions

- for antibody concentrations <0.06 mg/ml, 1:25</li>
- for antibody concentrations >0.06 mg/ml, 1:75
- for antibody concentrations >0.1 mg/ml, 1:150
   Note: The specified working dilutions of the
   antibodies are to be considered as guidelines only.
   Optimal dilutions must be determined by the user.

Immunohistochemical staining – Performed with Lab Vision Autostainer™ 480. Incubations are performed at room temperature. Reagents are applied at a volume of 300 μl per TMA slide.

- Rinse in wash buffer.
- 2. Incubate with primary antibody for 30 minutes.
- 3. Rinse 2 times in wash buffer.
- Incubate with peroxidase labeled polymer conjugated to a secondary antibody for 30 minutes
- 5. Rinse 2 times in wash buffer.
- Develop for 10 minutes using diaminobenzidine (DAB) as the substrate.
- Rinse 2 times in distilled water <u>Note</u>: Steps 8–13 are done in a histostaining instrument (Leica Autostainer XL).
- 8. Counterstain in Mayer's hematoxylin for 5 minutes.
- 9. Rinse 2 times in tap water.
- Rinse in lithium carbonate water, diluted 1:5 from saturated solution, for 1 minute.
- 11. Rinse in tap water for 5 minutes.
- 12. Dehydrate in graded ethanol and xylene.
- 13. Coverslipping.

Prestige Antibodies is a registered trademark of Sigma-Aldrich® Biotechnology LP and Sigma-Aldrich Co. Autostainer is a trademark of Thermo Fisher Scientific. TWEEN is a registered trademark of Croda International PLC.

BD, KB, LPG, MAM 12/10-1

Sigma brand products are sold through Sigma-Aldrich, Inc.
Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.