

# Instructions For Use PIP080-IFU

Rev. Date: Nov. 4, 2021

**Revision: 3** 

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### PolyTek Anti-Rabbit (DAB) Polymerized HRP Imaging System

**Description:** PolyTek HRP Anti-Rabbit (DAB) Polymerized Imaging System has been developed to provide the

cleanest, most consistent staining available. The system is based on a polymerized peroxidase label that eliminates biotin and its' associated background issues from the equation. In addition, this product reduces the steps required for immunohistochemical staining by combining two steps from the traditional Biotin-Streptavidin system. PolyTek HRP Anti-Rabbit Polymerized Imaging System is effective with

antibodies of rabbit or guinea pig origin.

**Uses/Limitations:** Not to be taken internally.

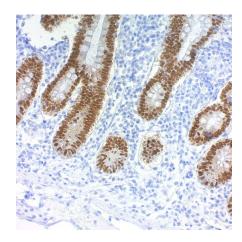
For In Vitro Diagnostic Use. Histological applications.

Do not use if reagents become cloudy. Do not use past expiration date. Use caution when handling reagents.

Non-Sterile.

**Control Tissue:** Any well-fixed tissue section.

Frozen tissue section.
Cytocentrifuge preparation.



Test Capacity: 80 Slides

Kit Contents: <u>Item # Description</u> <u>Volume</u>

ADA008 Peroxide Block for Image Analysis 8 ml
AAA008 Super Block 8 ml
PAR008 Anti-Rabbit Polymerized HRP 8 ml
ACB003 DAB Chromogen Concentrate 3 ml

ACU005 DAB Substrate (High Contrast) 5 ml x 8 vials

Recommended, But Not Included:

<u>Item #</u> <u>Description</u> CPL500 Citrate Plus

HAQ500 Hematoxylin for Automation

BRT500 Bluing Reagent

Storage: Store at 2-8°C.

**Precautions:** Avoid contact with skin and eyes.

Harmful if swallowed.

Follow all Federal, State, and local regulations regarding disposal.

Storage: 2° C 8° C



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#### Procedure:

- 1. Rehydrate tissue slides.
- 2. In a glass or plastic (Autoclavable) Coplin jar, add 5 ml of Citrate Plus (CPL) and 45 ml of deionized water.
- 3. Submerge slides in diluted Citrate Plus and loosely cap.
- 4. Add Distilled water to bottom of Autoclave or Pressure Cooker (about 1 inch deep in Pressure Cooker).
- 5. Place Coplin jar in Pressure Cooker or Autoclave.
- 6. Turn heat on and allow pressure to rise to 20-25 PSI.
- 7. Maintain pressure at 20-25 PSI for 5 minutes.
- 8. Turn off heat source and allow to cool.
- 9. When pressure has dropped to ambient, carefully remove lid or open door.
- 10. Using tongs, remove Coplin Jar and place on counter.
- 11. Once Coplin Jar cools to room temperature remove slides, rinse several times in buffer and proceed with staining as usual.
- 12. Apply Peroxide Block for Image Analysis (ADA) and incubate slide for 10-15 minutes.
- 13. Rinse 3 times in buffer.
- 14. Apply Super Block (AAA), and incubate for 5 minutes at room temperature to block nonspecific background staining. **Note:**Do not exceed 10 minutes or there may be a reduction in desired stain.
- Rinse 3 times in buffer.
- 16. Apply primary antibody and incubate according to manufacturer's protocol.
- 17. Rinse 3 times in buffer.
- 18. Apply PolyTek Anti-Rabbit Polymerized HRP and incubate for 30 minutes at room temperature.
- 19. Rinse 3 times in DI water.

WARNING: DAB is a suspected carcinogen. Handle with care and dispose of according to all regulations.

- 20. Add 8 drops of DAB chromogen to one 5ml vial of DAB Substrate. Mix well and apply to tissue for 5 minutes.
- 21. Rinse 1 time in DI Water.
- 22. Apply DAB Chromogen/Substrate mixture and incubate for a second 5-minute period.
- 23. Rinse 3 times in DI water.
- 24. Apply Hematoxylin for Automation (HAQ) and incubate for 1-5 minutes.
- 25. Rinse 3 times in distilled water.
- 26. Apply Bluing Reagent (BRT) and incubate for 5-10 seconds.
- 27. Rinse immediately in distilled or deionized water.
- 28. Dehydrate slides and clear in xylene or xylene substitute.
- Coverslip using a permanent mounting media.

-Troubleshooting Guide-

Storage:  $2^{\circ}$  C  $8^{\circ}$  C



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### Overstaining:

- 1. Concentration of the primary antibody was too high or the incubation time was too long.
- 2. Temperature during incubation was too high.
- 3. Incubation times were too long.

### Non-Specific Background Staining:

- 1. Rinsing between steps was inadequate.
- Tissue was allowed to dry with reagents on.
- 3. Folds in tissue trapped reagents.
- 4. Antigen migrated in tissue.
- Excessive tissue adhesive on slides.
- 6. Inadequate blocking with protein block.

#### Weak Staining:

- 1. Primary antibody concentration was too low or incubation time was too short.
- 2. Reagents are past their expiration date.
- 3. Inadequate removal of wash buffer between steps, resulting in dilution of reagents.
- 4. Room temperature was excessively cool.
- 5. The primary antibody does not recognize an antigen that survives fixation and embedding in high enough amounts.
- 6. Excessive incubation with protein block (Super Block or normal serum).

### No Staining:

- 1. Steps were inadvertently left out.
- 2. There is no antigen in the tissue.
- 3. The primary antibody is not of rabbit or guinea pig origin.
- 4. Chromogenic substrate has been replaced with another that is not intended for use with peroxidase.
- 5. One or more components of the kit have been inactivated.

