

Instructions For Use **PIR500-IFU**

Revision: 2

Rev. Date: Nov. 4, 2021

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P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 - Tel. (435) 755-9848 - Fax (435) 755-0015 - <u>www.scytek.com</u>

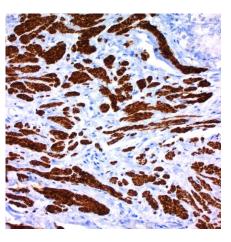
PolyTek Anti-Mouse HRP Polymer (DAB) Large Volume Kit

Description:

PolyTek Anti-Mouse HRP Polymer (DAB) Large Volume Kit has been developed to provide the cleanest, most consistent staining available. Developed in the research laboratories of ScyTek, 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. This kit is effective with antibodies of mouse or rat 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.

Ordering Information and Current Pricing at www.scytek.com



- REF# PIR500
- Test Capacity: Up to 5000 Slides

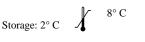
Contents:	Item #	Description	<u>Volume</u>
	AAA500	Super Block	500 ml
	PAM500	PolyTek Anti-Mouse HRP	500 ml
	ACB030	DAB Chromogen Concentrate	30 ml
	ACU500	DAB Substrate (High Contrast)	500 ml
DEE#			

- REF# PIR999
- Test Capacity: Up to 10000 Slides

Contents:	Item #	Description	Volume
	AAA999	Super Block	1000 ml
	PAM999	PolyTek Anti-Mouse HRP	1000 ml
	ACB060	DAB Chromogen Concentrate	60 ml
	ACU999	DAB Substrate (High Contrast)	1000 ml

Recommended, But Not Included:

ltem #	
CPL500	
ADA500	
HMM500	
BRT500	





ScyTek Laboratories, Inc. 205 South 600 West Logan, UT 84321 U.S.A.

Bluing Reagent

Description Citrate Plus

Peroxide Block for Image Analysis Hematoxylin, Mayer's (Lillie's Modification)



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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.

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.
- 15. 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-Mouse 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. Combine 50-80µl of DAB Chromogen with 1ml of DAB Substrate and apply to tissue for 5 minutes.
- NOTE: Range = 50-80µl of DAB Chromogen / 1 ml of DAB Substrate. 50µl /ml produces optimal staining quality, 80µl/ml produces maximum sensitivity. Combined mixture may be used for up to six hours.
- 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, Mayer's (HMM) and incubate for 1 minute.
- 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.
 - Storage: 2° C

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29. Coverslip using a permanent mounting media.

-Troubleshooting Guide-

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.
- 2. Tissue was allowed to dry with reagents on.
- 3. Folds in tissue trapped reagents.
- 4. Antigen migrated in tissue.
- 5. Excessive tissue adhesive on slides.
- 6. Inadequate blocking with protein block.

Weak Staining:

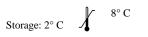
- 1. Primary antibody concentration was too low or incubation time was too short.
- 2. Reagents are past their expiration date.
- 3. Inadequate removal of wash buffer between steps, resulting in dilution of reagents.
- 4. Room temperature was excessively cool.
- 5. The primary antibody does not recognize 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 mouse or rat 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.

References:

- 1. Vistarop AG, Cohen M, De Matteo E, Preciado MV, Chabay PA. Analysis of Epstein-Barr virus infection models in a series of pediatric carriers from a developing country. Scientific reports. 2016 Mar 18;6:23303.
- 2. Yu YH. Artificial membrane induced by novel biodegradable nanofibrous scaffold. Nanomedicine. 2016;12(7):1785-93.
- Kaliaperumal J, Padarthi P, Elangovan N, Hari N. Anti-tumorigenic effect of nano formulated peptide pACC1 by diminishing de novo lipogenisis in DMBA induced mammary carcinoma rat model. Biomedicine & Pharmacotherapy. 2014 Jul 31;68(6):763-73.



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4. Valva P, Gismondi MI, Casciato PC, Galoppo M, Lezama C, Galdame O, Gadano A, Galoppo MC, Mullen E, De Matteo EN, Preciado MV. Distinctive intrahepatic characteristics of paediatric and adult pathogenesis of chronic hepatitis C infection. Clinical Microbiology and Infection. 2014 Dec 31;20(12):O998-1009.





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