# Mouse/Rabbit ImmunoDetector AP ALK Scarlet Detection System







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## **Intended Use**

For In Vitro Diagnostic Use.

## **Summary and Explanation**

The Mouse/Rabbit ImmunoDetector Alkaline Phosphatase/ ALK Scarlet Detection System is a Biotin-Streptavidin-Alkaline Phosphatase Detection System that allows for the demonstration of antigens in formalin-fixed paraffin-embedded tissue, cryostat sections, cytosmears, and cell preparations. The increased sensitivity of ImmunoDetector AP/ALK Scarlet Detection System allows for rapid staining procedures without compromises in the quality of stains.

The ImmunoDetector AP Blocker is used to block the endogenous Alkaline Phosphatase enzymes that naturally occur in cells and tissue sections without affecting antigens or nucleic acids. The Mouse/Rabbit ImmunoDetector Alkaline Phosphatase Detection System is suitable for use with mouse (IgG and IgM) and rabbit primary monoclonal and polyclonal antibodies. The substrate chromogen is the final step in the detection portion; it enables the antibody-antigen-enzyme complex to be viewed under the light microscope. This occurs when Alk Scarlet, in the presence of Alkaline Phosphatase, gets deposited at the site of the target antigen, producing a scarlet color that is partially soluble in organic solvents, and therefore care should be taken when mounting with permanent mounting media (please refer to the recommended permanent mounting protocol on reverse). The ImmunoDetector AP/ALK Scarlet Detection System kits are universal kits and therefore work equally well with prediluted and concentrated antibodies from different vendors.

## **Presentation**

The ImmunoDetector Alkaline Phosphatase Detection System contains an Alkaline Phosphatase Blocker solution, a Link of Biotinylated Anti-Mouse and Anti-Rabbit immunoglobulin solution, a Streptavidin conjugated to Alkaline Phosphatase solution, an ALK Scarlet chromogen solution, and an ALK Scarlet Buffer-Substrate solution. All the components are buffered with stabilizers and a non-azide anti-microbial agent.

| Catalog No. | Volume/Qty           |
|-------------|----------------------|
| BSB-0350-15 | 15 mL Each [kit]     |
| BSB 0001L   | 15 mL Link Only      |
| BSB 0082A   | 15 mL Label Only     |
| BSB 0082LA  | 15 mL Link and Label |
| BSB-0350-50 | 50 mL Each [kit]     |
| BSB 0003L   | 50 mL Link Only      |
| BSB 0083A   | 50 mL Label Only     |

| Catalog No.  | Volume/Qty            |
|--------------|-----------------------|
| BSB 0083LA   | 50 mL Link and Label  |
| BSB-0350-100 | 100 mL Each [kit]     |
| BSB 0005L    | 100 mL Link Only      |
| BSB 0084A    | 100 mL Label Only     |
| BSB 0084LA   | 100 mL Link and Label |
| BSB-0350-200 | 200 mL Each [kit]     |
| BSB 0007L    | 200 mL Link Only      |

| Catalog No.   | Volume/Qty             |
|---------------|------------------------|
| BSB 0085A     | 200 mL Label Only      |
| BSB 0085LA    | 200 mL Link and Label  |
| BSB-0350-1000 | 1000 mL Each [kit]     |
| BSB 0009L     | 1000 mL Link Only      |
| BSB 0086A     | 1000 mL Label Only     |
| BSB 0086LA    | 1000 mL Link and Label |

**Storage** Store at 2-8°C

## **Stability**

The Mouse/Rabbit ImmunoDetector AP ALK Scarlet Detection System is stable up to the expiration date listed on the product label. Do not use this product after the expiration date listed on the product label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

#### **Precautions**

- 1 For professional users only. Results should be interpreted by a qualified medical professional.
- 2. Ensure proper handling procedures are used with reagent. Minimize microbial contamination of reagents.
- 3. Always wear proper personal protective equipment such as laboratory coat, goggles and gloves when handling reagents.
- 4. Dispose of unused solution according to local and federal regulations.

- 5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
- 6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
- 7. Follow safety precautions for the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
- 8. For additional safety information refer to Safety Data Sheet for this product.
- 9. For complete recommendations for handling biological specimens please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (1).

## **Specimen Preparation**

**Paraffin sections:** This product can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pretreatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020 - BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033). Additionally, TintoDeparaffinator Citrate or EDTA (BSB 0175 - BSB 0178) can be used to deparaffinize, retrieve and hydrate FFPE Tissues. Tissue should remain hydrated using Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

Frozen sections and cell preparations: This product can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

# **Preparation of Working Solution**

The AP Blocker, ImmunoDetector Link Anti-Mouse/Rabbit, and AP Label are ready-to-use working solutions and require no further preparation. To prepare a working ALK Scarlet Substrate-Chromogen solution, first shake the ALK Scarlet well Chromogen solution, then add 1 drop of Chromogen to 1 mL of Substrate-Chromogen solution. Mix the two solutions well. Use this working solution within 5-10 minutes of preparation.

#### **Recommended Protocol**

- 1. Cut and mount 3-5-micron formalin-fixed paraffin-embedded tissues on positive charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028) or TintoDetector Cap Gap Slides (BSB 7006).
- 2. Air dry for 2 hours at 58° C.
- 3. Deparaffinize, dehydrate and rehydrate tissues. Additionally, TintoDeparaffinator Citrate or EDTA (BSB 0175 BSB 0178) can be used to deparaffinize, retrieve and hydrate FFPE Tissues.
- 4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
- 5. Any of three heating methods may be used:

#### a. TintoRetriever Pressure Cooker or Equivalent

Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA or TintoDeparaffinator Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Release vapor, open and immediately transfer slides to room temperature.

#### b. TintoRetriever PT Module or Water Bath Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, or TintoDeparaffinator Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes. Open and immediately transfer slides to room temperature.

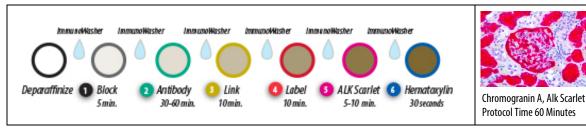
#### c. Conventional Steamer Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, or TintoDeparaffinator Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.

- 6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA, or in TintoDeparaffinator Citrate or EDTA to room temperature and let stand for 15-20 minutes.
- 7. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
- 8. Wash slides with ImmunoDNA washer or DI water.
- 9. Continue IHC staining protocol. Wash slides between each step with ImmunoDNA washer solution.

#### Abbreviated Immunohistochemical Protocol

| Step                     | ImmunoDetector AP/HRP |
|--------------------------|-----------------------|
| Peroxidase/AP Blocker    | 5 min.                |
| Primary Antibody         | 30-60 min.            |
| 1st Step Detection       | 10 min.               |
| 2nd Step Detection       | 10 min.               |
| Substrate-Chromogen      | 5-10 min.             |
| Counterstain / Coverslip | Varies                |



# **Mounting Protocol**

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter (BSB 0169-0174) or organic solvent based resin such as PermaMounter (BSB 0094-0097), refer to PI0174 or PI0097.

## **Product Limitations**

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

# References

1. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012.

# Symbol Key / Légende des symboles/Erläuterung der Symbole



