# PolyDetector AEC HRP Red Ready-To-Use Substrate - Chromogen



## **Intended Use**

For In Vitro Diagnostic Use.

# **Summary and Explanation**

PolyDetector AEC HRP Red Ready-to-Use Substrate-Chromogen is suitable for use in HRP Detection Systems and allow for the demonstration of tissue antigens or nucleic acids in paraffin-embedded tissues, cryostat sections, cytosmears, and cell preparations. The substrate chromogen is the final step in the detection portion; it enables the antibody antigen complex to be viewed under the light microscope. This occurs because PolyDetector AEC HRP Red acts as an electron donor in the presence of the enzyme horseradish peroxidase; PolyDetector AEC HRP Red gets oxidized and produces a red color at the site of the target antigen or nucleic acid.

PolyDetector AEC HRP Red is soluble in organic solvents and therefore should be mounted with water-based mounting media, such as Aqua Mounter (BSB 0090-BSB 0093) or it can be mounted with permanent medium when using the Bio SB ChromoProtector (BSB 0151- BSB 0156).

#### **Presentation**

PolyDetector AEC HRP Red Ready-to-Use Substrate-Chromogen (3-Amino-9-ethylcarbazole) is a chromogen (color forming molecule) that develops into a red precipitate.

Catalog No.	Concentration	Volume
BSB 0011	Ready-to-Use	15 mL
BSB 0012	Ready-to-Use	50 mL
BSB 0013	Ready-to-Use	100 mL
BSB 0014	Ready-to-Use	200 mL
BSB 0061A	Ready-to-Use	500 mL
BSB 0061	Ready-to-Use	1000 mL

**Storage** Store at 2-8°C

## **Stability**

**This product is stable up to the expiration date on the product label.** Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

## **Specimen Preperation**

**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). 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**

Shake the PolyDetector AEC HRP Red Ready-to-Use Substrate-Chromogen solution before use.

#### **Abbreviated Immunohistochemical Protocol**

Step	ImmunoDetector HRP	PolyDetector HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

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# **Mounting Protocol**

#### a. Aqueous Mounting Protocol

- 1. After the histological, immunohistochemical or *in situ* hybridization staining procedure is completed, rinse slides in deionized water.
- 2. Add an Aqueous Mounting medium such as AquaMounter (BSB 0090-0093) or similar mounting media.
- 3. Apply cover slip and air dry before microscopic observation.

#### b. ChromoProtector Protocol

- 1. After the histological, immunohistochemical or *in situ* hybridization staining procedure is completed, rinse slides in deionized water. Do not incubate tissue or cell specimens in solvents such as alcohol, toluene, or xylene.
- 2. Using a coplin jar, or a staining dish with a rack, immerse slides with tissues in ChromoProtector or lay wet slides horizontally and apply sufficient drops of ChromoProtector (BSB 0151 BSB 0156) to completely cover the tissue. Carefully spread ChromoProtector if needed, but avoid contacting the tissue.
- 3. Incubate slides for ten minutes at 60 °C to allow ChromoProtector to penetrate tissues.
- 4. Remove excess ChromoProtector by placing slides vertically over an absorbent material and let excess drain off into absorbent material. Do not rinse slides.
- 5. Allow slides to COMPLETELY air dry.
  - NOTE: The ChromoProtector will protect tissue from drying artifacts during the air-drying process.
- 6. When slides are completely dried, they can be mounted using most standard mounting methods such as agueous or permanent.
- 7. Permanent Mounting
  - Do not dehydrate slide through alcohol and/or xylene prior to mounting.
  - Permanent Mounting medium such as XyGreenPermaMounter (Cat # BSB 0169-0174), PermaMounter (Cat # BSB 0094-0097) or similar permanent mounting media can be added directly to the slide until the tissue or cell specimen is covered.
  - If the Permanent Mounting medium does not spread evenly on the dry slide, the slide can be dipped in toluene or xylene for 1 2 seconds to aid spreading of the mounting medium.
  - Use a minimum amount of mounting medium so that slides dry rapidly.
  - Apply coverslip and air dry before microscopic observation.

#### **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.

# **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 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. For additional safety information refer to Safety Data Sheet for this product.
- 8. 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" (see References in this document).

#### 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

