

AEC Substrate Kit (red, 20×)

Catalog No.: PA10004

Basic Information

Product name	AEC Substrate Kit (red, 20×)
Sizes	100T, 500T
Storage	2-8 °C, keep away from light
Shipping	Shipped with ice pack
Validity	12 months

Product Introduction

AEC chromogenic detection relies on peroxidase-catalyzed oxidation of the electron-donor substrate 3-amino-9-ethylcarbazole (AEC). In the presence of hydrogen peroxide, AEC loses electrons, undergoes a color change, and precipitates as a stable red product that marks the site of target protein expression. This red precipitate is insoluble in water but soluble in organic solvents.

The AEC Chromogenic Substrate Kit is intended for peroxidase (POD)-based immunoassays such as immunohistochemistry (IHC), Western blotting (WB), in situ hybridization (ISH), and TUNEL staining.

Product Components

Components	100T	500T
Reagent 1: AEC chromogen A	500μL	2.5mL
Reagent 2: AEC chromogen B	500μL	2.5mL
Reagent 3: AEC chromogen C	10mL	50mL

Experimental procedure

1. Prepare working solution: Add 50 μL Reagent 1 and 50 μL Reagent 2 to 1 mL Reagent 3; mix thoroughly.
2. Apply substrate: Cover specimen with sufficient AEC working solution and incubate at room temperature (RT) in the dark for 3–10 min. Extend incubation if background remains low and signal is still increasing.
3. Stop reaction: Rinse extensively with distilled water.

Tissue sections: Counterstain with an alcohol-free formulation of Mayer' s hematoxylin if desired.

AEC Substrate Kit (red, 20×)

Catalog No.: PA10004

-
4. Mounting: Use an aqueous mounting medium (e.g., glycerol gelatin). Do not dehydrate through ethanol or clear in xylene.

Notes

1. AEC precipitate is soluble in organic solvents; avoid alcoholic counterstains, differentiation solutions, ethanol dehydration, xylene clearing, and resinous mountants.
2. AEC is light-sensitive—perform incubation and subsequent storage in the dark.
3. Wear appropriate PPE (lab coat, gloves, mask).
4. For research use only; not for diagnostic or therapeutic applications.

This product is for research use only!