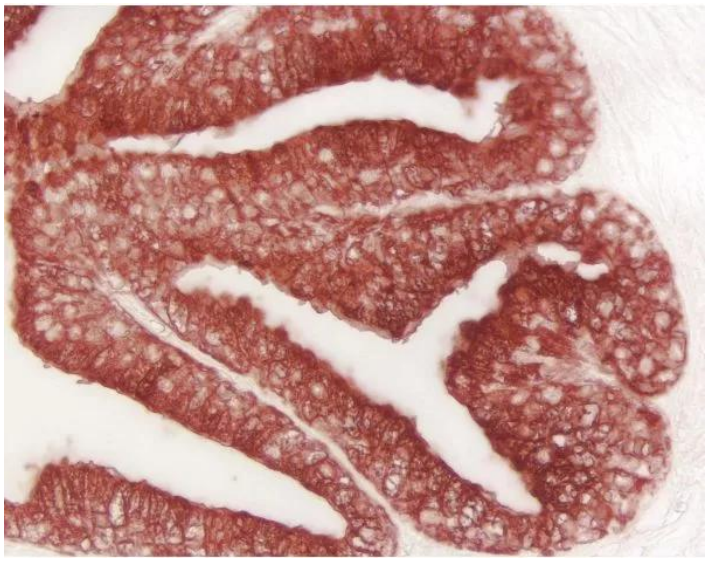
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# IMMPACT® AEC SUBSTRATE, PEROXIDASE (HRP)

**SKU:** SK-4205



## DESCRIPTION

ImmPACT AEC (3-amino-9-ethylcarbazole) HRP Substrate produces a red reaction product that can be used as a single label or as a second color for multiple antigen labeling. Stained slides must be aqueously mounted because these reaction products are soluble in organic solvents. It generates a crisper reaction product that is 3-5 times more sensitive than conventional AEC substrates such as AEC Substrate Kit (SK-4200).

**Features:**

- Optimized for IHC/ICC/ISH and blots
- Working solution stable for up to 14 days at 4 °C
- Supplied as 120 ml of diluent and stock solutions in dropper bottles

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# SPECIFICATIONS

| | |
|---|---|
| **Chromogen Color** | Red |
| **Detection Enzyme** | Peroxidase |
| **Microscopy** | Brightfield, Spectral Imaging |
| **Mounting Medium Type** | Aqueous (Hardening), Aqueous (Non-Hardening) |
| **Unit Size** | 120 ml |
| **Applications** | Immunohistochemistry / Immunocytochemistry, In situ hybridization, Blotting Applications, Elispot |
| **Additional Substrate Properties** | Contrast with Tissue Pigments, Multiple Labeling |
| **Safety Title** | WARNING: Cancer –www.P65Warnings.ca.gov |
| **Substrate Reaction Product** | Precipitating Reaction Product |

# KIT COMPONENTS

- 120 ml ImmPACT AEC Diluent
- 3 ml ImmPACT AEC – Reagent 1
- 3 ml ImmPACT AEC – Reagent 2
- 3 ml ImmPACT AEC – Reagent 3

# TECHNICAL INFORMATION

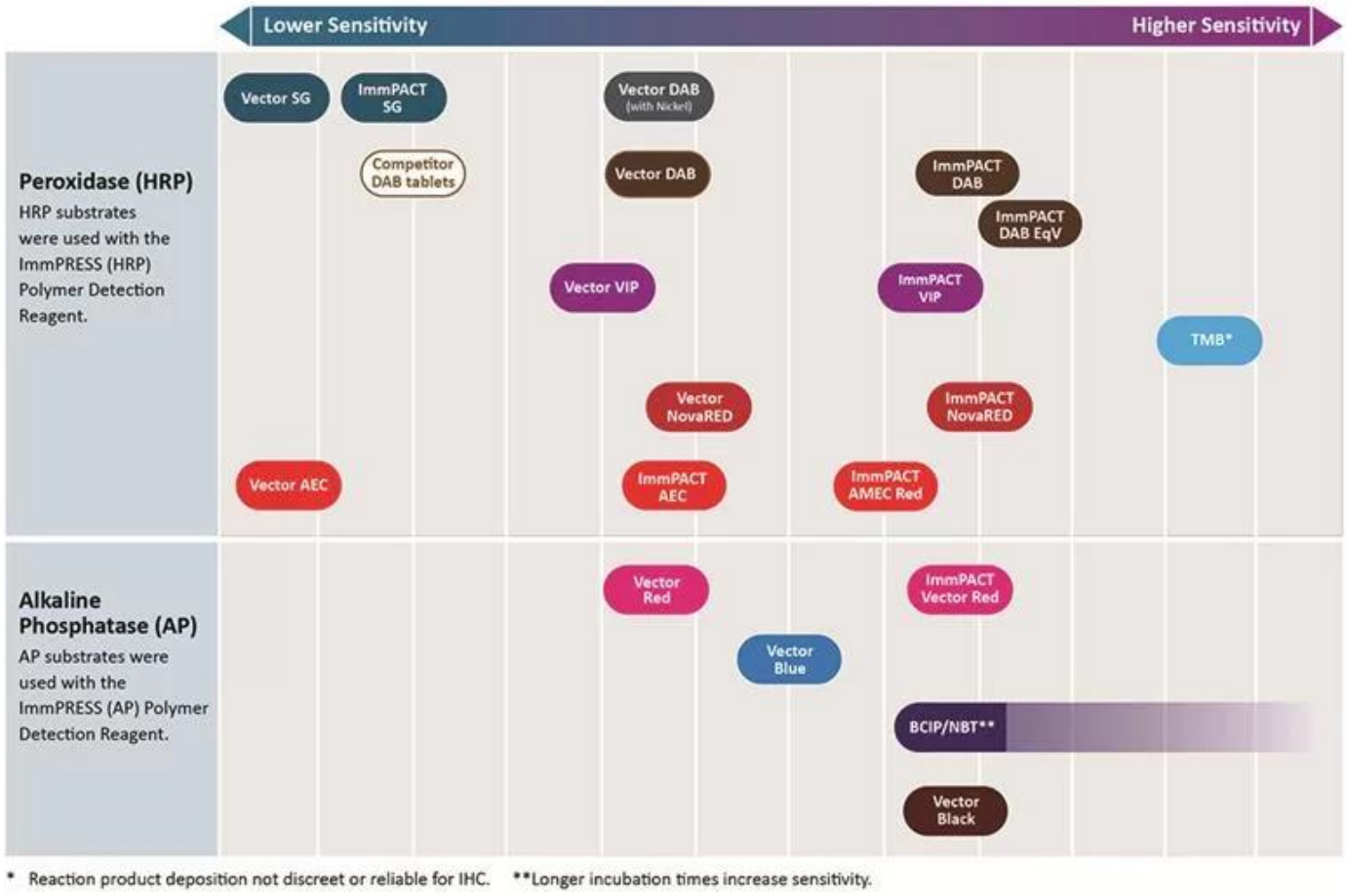
AEC and ImmPACT AEC chromogens can be used for both manual and automated staining methods. Sections stained with AEC are stable for at least 4 years when mounted in VectaMount® AQ (H-5501).

This product consists of 120 ml of diluent and concentrated stock solutions of ImmPACT AEC reagents in convenient dropper bottles. This substrate formulation can be used on nylon or PVDF membranes but is not recommended for use on nitrocellulose membranes. Working solutions are stable for up to 14 days at 4° C.

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## Relative Sensitivity of Substrates in Immunohistochemistry




* Reaction product deposition not discreet or reliable for IHC. **Longer incubation times increase sensitivity.

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# Counterstain/Substrate Compatibility Table

This table is designed as a reference to determine the optimal counterstain/substrate combination for your application. Considerations should be given to tissue type, antigen unmasking protocol and other detection parameters to achieve the desired staining intensity.

| Substrate | Catalog Number | Vector Hematoxylin and Hematoxylin QS H-3401 and H-3404 | Vector Methyl Green H-3402 | Vector Nuclear Fast Red H-3403 |
|---|---|---|---|---|
| ImmPACT DAB (brown) | SK-4105 | Excellent Contrast | Excellent Contrast | Fair Contrast |
| ImmPACT DAB EqV | SK-4103 | Excellent Contrast | Excellent Contrast | Fair Contrast |
| DAB (brown) | SK-4100 | Excellent Contrast | Excellent Contrast | Fair Contrast |
| DAB-Ni (gray-black) | SK-4100 | Excellent Contrast | Fair Contrast * | Good Contrast |
| ImmPACT AEC (red) | SK-4205 | Excellent Contrast | Counterstain Incompatibility ** | Color Incompatibility |
| ImmPACT AMEC Red (red) | SK-4285 | Excellent Contrast | Counterstain Incompatibility ** | Color Incompatibility |
| AEC (red) | SK-4200 | Excellent Contrast | Counterstain Incompatibility ** | Color Incompatibility |
| TMB (blue) | SK-4400 | Color Incompatibility | Counterstain Incompatibility | Excellent Contrast |
| ImmPACT VIP (purple) | SK-4605 | Fair Contrast | Excellent Contrast | Poor Contrast |
| Vector VIP (purple) | SK-4600 | Fair Contrast | Excellent Contrast | Poor Contrast |
| ImmPACT SG (blue-gray) | SK-4705 | Poor Contrast | Good Contrast | Excellent Contrast |
| SG (blue-gray) | SK-4700 | Poor Contrast | Good Contrast | Excellent Contrast |
| ImmPACT NovaRED (red) | SK-4805 | Excellent Contrast | Excellent Contrast *** | Color Incompatibility |
| Vector NovaRED (red) | SK-4800 | Excellent Contrast | Excellent Contrast *** | Color Incompatibility |
| ImmPACT Vector Red (magenta) | SK-5105 | Excellent Contrast | Excellent Contrast | Color Incompatibility |
| Vector Red (magenta) | SK-5100 | Excellent Contrast | Excellent Contrast | Color Incompatibility |
| Vector Black (black) | SK-5200 | Excellent Contrast | Excellent Contrast * | Excellent Contrast |
| Vector Blue (blue) | SK-5300 | Color Incompatibility | Good Contrast | Excellent Contrast |
| BCIP/NBT (indigo) | SK-5400 | Color Incompatibility | Excellent Contrast * | Excellent Contrast |

* This substrate shows a slight decrease in sensitivity following the methyl green protocol. This decrease can be minimized by reducing the heat incubation and acetone rinse times in the methyl green protocol.

** Substrate dissolves in acetone wash.

*** A slight color change in ImmPACT NovaRED™ and Vector NovaRED™ reaction product may be seen using methyl green.

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## Enzyme Substrate Combinations

Recommended combinations of substrates and the recommended order in which they should be used.

| First Substrate \ Second Substrate | Alkaline Phosphatase | | | Peroxidase | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ImmPACT Vector Red & Vector Red (magenta) SK-5105 & SK-5100 | Vector Blue (blue) SK-5300 | BCIP/NBT (indigo) SK-5400 | ImmPACT VIP & Vector VIP (purple) SK-4605 & SK-4600 | ImmPACT DAB, ImmPACT DAB EqV & DAB (brown) SK-4105, SK-4103, SK-4100 | DAB-Ni (gray-black) SK-4100 | ImmPACT NovaRED & Vector NovaRED (red) SK-4805 & SK-4800 | ImmPACT SG & SG (blue-gray) SK-4705 & SK-4700 | ImmPACT AEC, ImmPACT AMEC Red & AEC (red) SK-4205, SK-4285, SK-4200 |
| **Alkaline Phosphatase** | | | | | | | | | |
| ImmPACT Vector Red & Vector Red (magenta) SK-5105 & SK-5100 | | − | − | − | + | + | − | + | − |
| Vector Blue (blue) SK-5300 | + | | − | + | + | + | + | + | + |
| BCIP/NBT (indigo) SK-5400 | + | − | | + | + | + | + | + | + |
| **Peroxidase** | | | | | | | | | |
| ImmPACT VIP & Vector VIP (purple) SK-4605, SK-4600 | − | + | − | | + | + | − | + | − |
| ImmPACT DAB, ImmPACT DAB EqV & DAB (brown) SK-4105, SK-4103, SK-4100 | + | + | + | + | | − | − | + | + |
| DAB-Ni (gray-black) SK-4100 | + | − | − | + | + | | + | − | − |
| ImmPACT NovaRED & Vector NovaRED (red) SK-4805, SK-4800 | − | + | + | − | + | + | | + | − |
| ImmPACT SG & SG (blue-gray) SK-4705, SK-4700 | + | − | − | + | + | − | − | | + |
| ImmPACT AEC, ImmPACT AMEC Red & AEC (red) SK-4205, SK-4285, SK-4200 | − | − | − | − | + | − | − | + | |

\+ Indicates good contrast  − Indicates incompatiblity of substrates for various reasons

# CITATIONS

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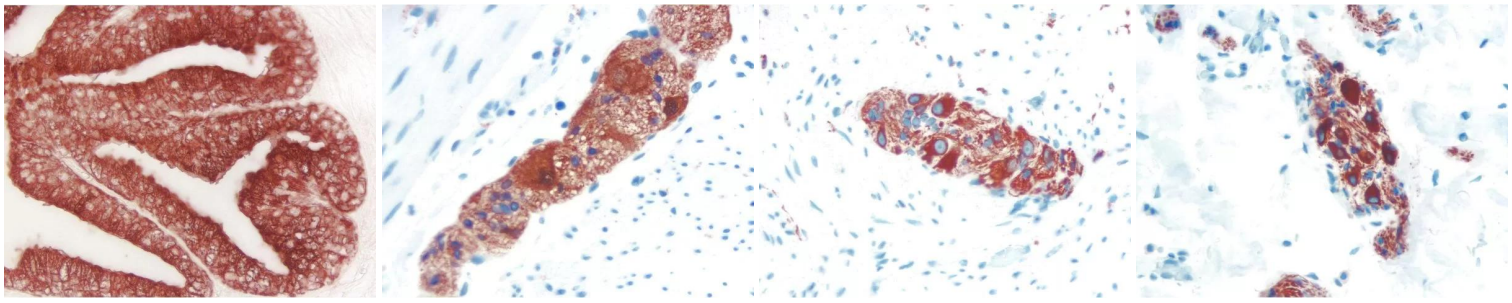
# DOCUMENTS

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- Safety Data Sheet
- Enzyme Substrates Brochure
- Enzyme Substrate Combinations Chart
- Counterstain/Substrate Compatibility Chart
- User Guide
- Download CoA
- Datasheet

## GALLERY IMAGES





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