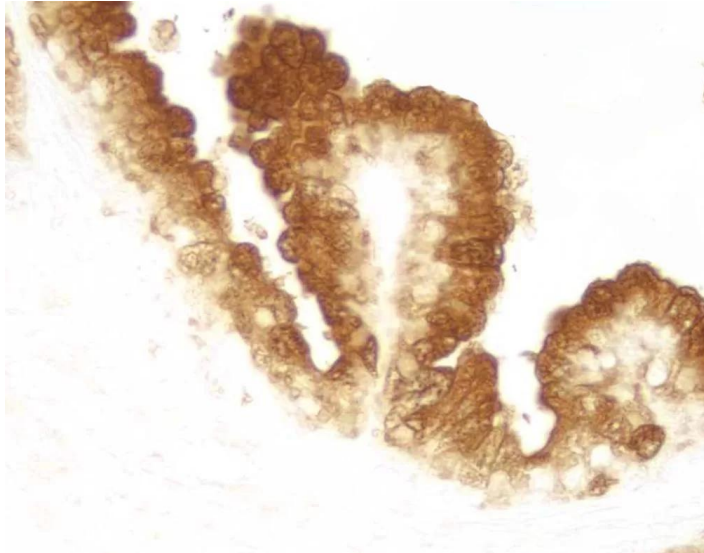




DAB SUBSTRATE KIT, PEROXIDASE (HRP), WITH NICKEL, (3,3'-DIAMINOBENZIDINE)

SKU: SK-4100



DESCRIPTION

This kit contains all of the reagents necessary to prepare either a DAB or a DAB/nickel substrate working solution. Vector DAB Substrate (3,3'-diaminobenzidine) produces a brown reaction product in the presence of peroxidase (HRP) enzyme. This kit also includes nickel chloride, which, when added to the substrate working solution, results in a gray-black reaction product. Vector DAB Substrate is suitable for darkfield and electron microscopy (EM).

Features of this kit:

- Ideal for IHC/ICC/ISH and blots
- Heat Stable
- Permanent mounting
- Ideal for single and multiple labeling
- No wait times for mixing and dissolving powders or tablets

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- Sufficient reagents to produce 300 ml of working solution

SPECIFICATIONS

Chromogen Color	Brown, Gray-Black
Detection Enzyme	Peroxidase
Microscopy	Brightfield, Darkfield, Electron, Spectral Imaging
Mounting Medium Type	Aqueous (Hardening), Non-Aqueous (Permanent)
Unit Size	1 Kit
Applications	Immunohistochemistry / Immunocytochemistry, In situ hybridization, Blotting Applications, Elispot
Additional Substrate Properties	Heat Resistant, Multiple Labeling
Safety Title	WARNING: Cancer – www.P65Warnings.ca.gov
Substrate Reaction Product	Precipitating Reaction Product

KIT COMPONENTS

- 6 ml DAB Reagent 1
- 6 ml DAB Reagent 2
- 6 ml DAB Reagent 3
- 6 ml DAB Reagent 4 (Nickel Optional)

TECHNICAL INFORMATION

This kit contains stock solutions in convenient dropper bottles. Slides developed with DAB/ Ni should be dehydrated, cleared, and permanently mounted. For additional information, [view this product review on Biocompare.com](#).

Counterstain / Substrate Compatibility

This table is designed as a reference to determine the optimal counterstain / substrate combination for your application. Consideration should be given to tissue type, antigen

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unmasking protocol, and other detection parameters to achieve the desired staining intensity.

Substrate	Catalog Number	Hematoxylin (H-3404) Hematoxylin QS (H-3401)	Methyl Green (H-3402)	Nuclear Fast Red (H-3404)
ImmPACT DAB (brown)	SK-4105	Excellent Contrast	Excellent Contrast	Fair Contrast
ImmPACT DAB EqV (brown)	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

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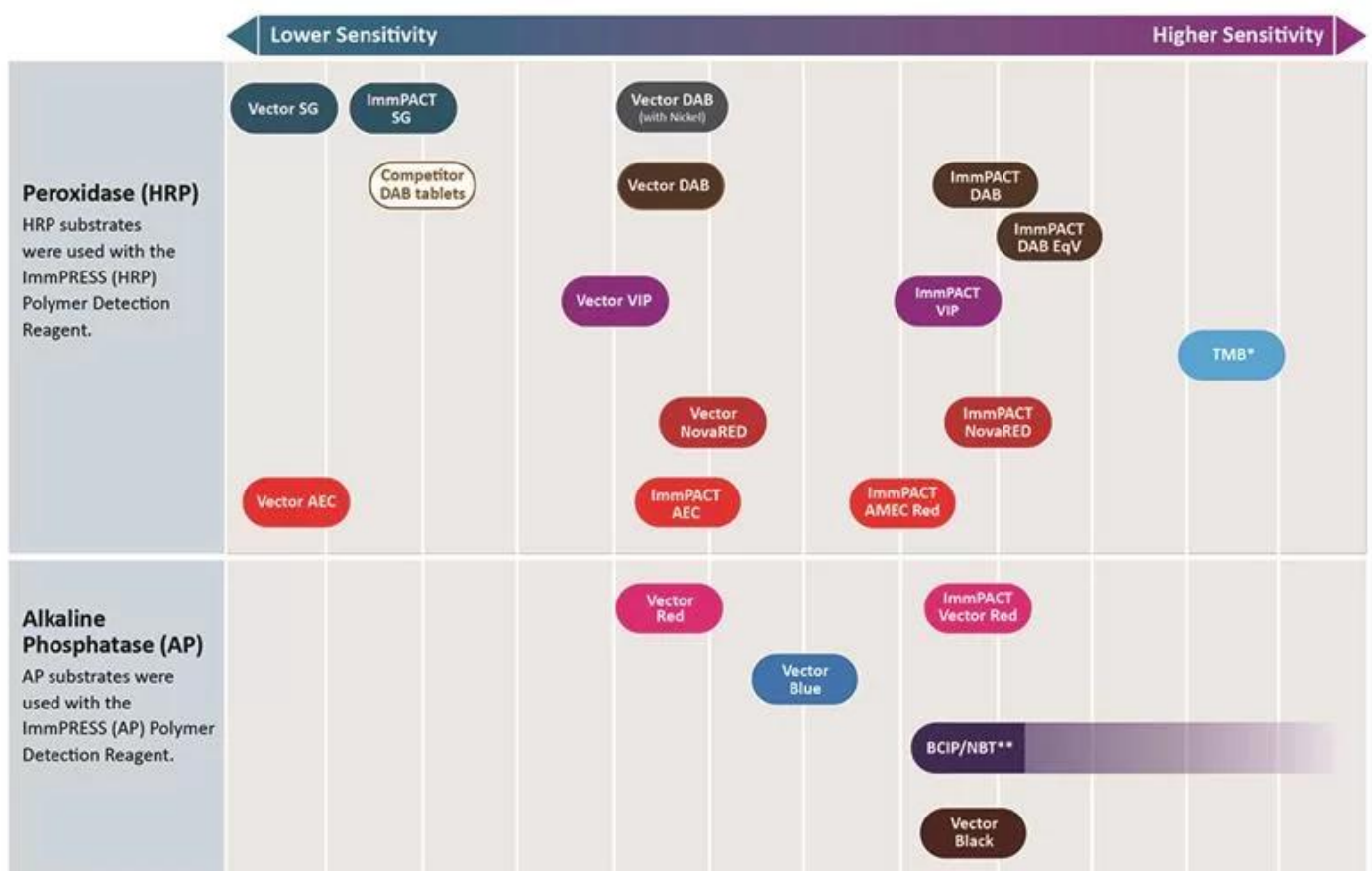
Vector Black (black)	SK-5200	Excellent Contrast	Excellent Contrast*	Excellent Contrast
Vector Blue (blue)	SK-5300	Color Incompatibility	Good Contrast	Excellent Contrast
BCIP / NBT (indigo)	SK-5400	Color Incompatibility	Excellent Contrast*	Excellent Contrast

*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.

**Substrate dissolves in acetone wash.

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

Relative Sensitivity of Substrates in Immunohistochemistry



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

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Enzyme Substrate Combinations

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

Second Substrate First 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 incompatibility of substrates for various reasons

CITATIONS



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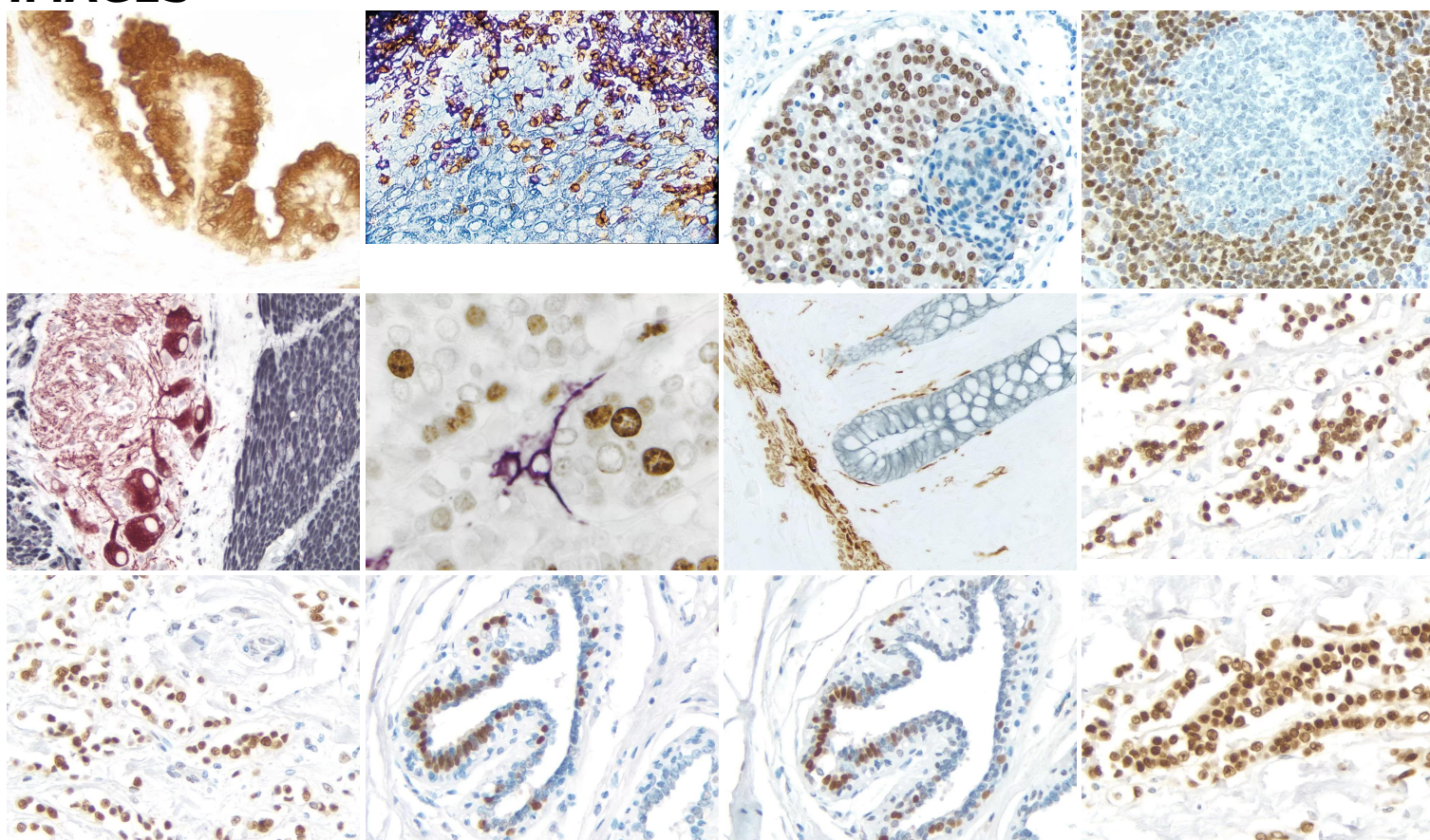
DOCUMENTS

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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



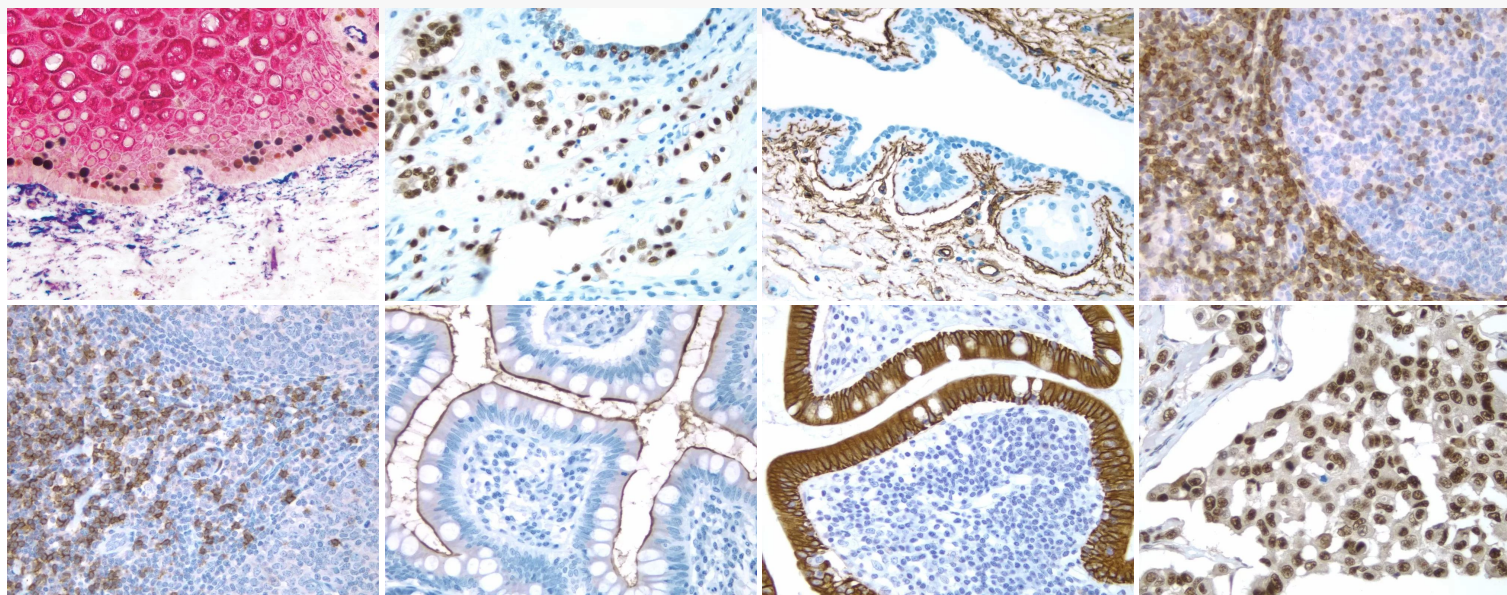
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[DAB Substrate Kit, Peroxidase \(HRP\), with Nickel, \(3,3'-diaminobenzidine\)](https://vectorlabs.com/products/dab-hrp-substrate/)

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