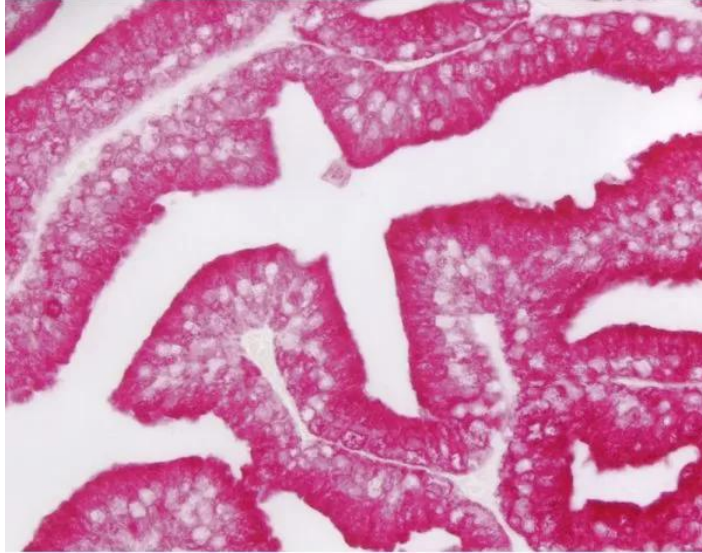




## **IMPACT VECTOR RED SUBSTRATE, ALKALINE PHOSPHATASE (AP)**

**SKU:** SK-5105



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### **DESCRIPTION**

ImmPACT Vector Red AP Substrate Kit produces a magenta reaction product that is crisper and is 2-4 times more sensitive than the original Vector® Red substrate kit (SK-5100). It can be used singly or in combination with other alkaline phosphatase or peroxidase substrates for multiple label applications.

#### **Features:**

- Ideal for IHC/ICC/ISH and blots
- Fluorescent
- Heat Stable
- Permanent mounting
- Supplied as 120 ml of ready-to-use diluent and stock solutions in dropper bottles
- Excitation: broad excitation spectrum, approx. 365 nm to 560 nm

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- Emission: Above 560 nm
- Color: Red

## SPECIFICATIONS

<b>Microscopy</b>	Brightfield, Fluorescence, Spectral Imaging
<b>Unit Size</b>	120 ml
<b>Applications</b>	Immunohistochemistry / Immunocytochemistry, Immunofluorescence, In situ hybridization, Blotting Applications, Elispot
<b>Additional Substrate Properties</b>	Contrast with Tissue Pigments, Fluorescent, Heat Resistant, Multiple Labeling

## KIT COMPONENTS

- 120 ml ImmPACT Vector Red Diluent
- 2.5 ml ImmPACT Vector Red Reagent 1
- 2.5 ml ImmPACT Vector Red Reagent 2

## TECHNICAL INFORMATION

Both Vector Red and ImmPACT Vector Red alkaline phosphatase (AP) substrates produce red, heat stable reaction products that are also highly fluorescent and non-fading. Preparations stained with either Vector Red or ImmPACT Vector Red AP chromogen can be dehydrated, cleared, and permanently mounted. Because of their stability under ISH conditions, both chromogens can be used in IHC/ISH double labeling applications. Both formulations can be used for either manual or automated staining methods.

The bright fluorescence of the Vector Red or ImmPACT Vector Red reaction products are visible using DyLight™ 594, Texas Red® or TRITC filter systems. The fluorescence is especially bright in dehydrated, permanently mounted sections. The fluorescence is stable and does not photobleach like most fluorescent dyes.

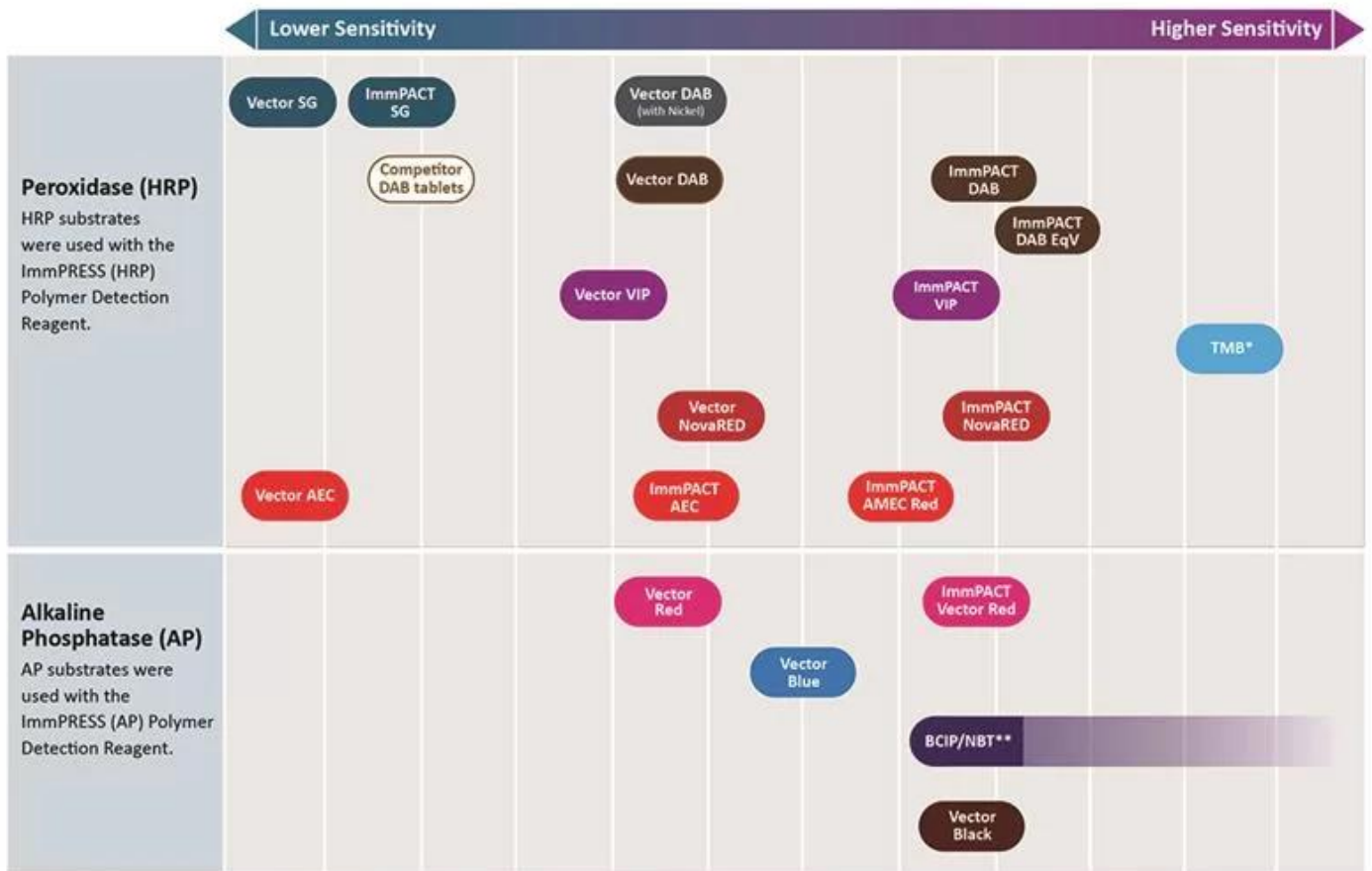
Either substrate formulation can also be used on blots. Compared to other AP substrates, the Vector Red and ImmPACT Vector Red reaction products have a wider dynamic range, offering

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better quantitation of targets on blots.

### 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.

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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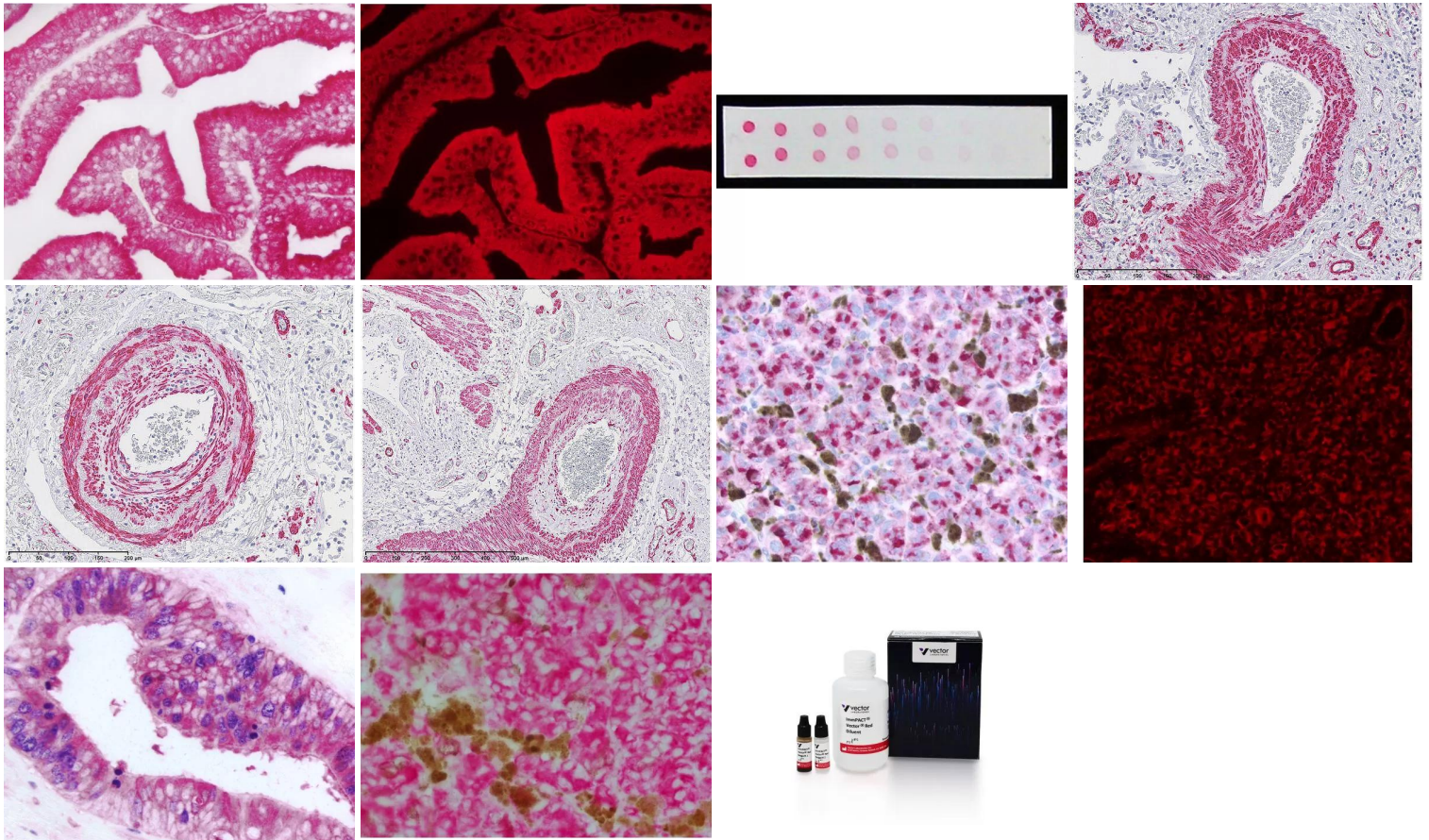
## DOCUMENTS

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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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