

**UltraVision LPValue Large Volume Detection System  
AP Polymer (Ready-To-Use)**

**INTENDED USE**

For In Vitro Diagnostic Use

<b><u>AVAILABILITY:</u></b>	<u>Catalog #</u>	<u>Slide Volume</u>
	TL-060-ALS	300-600 slides
	TL-125-ALS	625-1250 slides

<b><u>SPECIFICITY:</u></b>	Anti-Mouse IgG (H+L), Anti-Rabbit IgG (H+L)
<b><u>ENZYME:</u></b>	Alkaline Phosphatase
<b><u>CHROMOGEN/SUBSTRATE:</u></b>	None provided

**REAGENTS**

Qty.	Component	TL-060-ALS	TL-125-ALS
1	Ultra V Block	TA-060-UB	TA-125-UB
1	Value Primary Antibody Enhancer	TL-060-PBS	TL-125-PBS
1	Value AP Polymer	TL-060-APS	TL-125-APS

(The three-digit number in the middle of each Catalog # designates the reagent volume in mL or number of tablets.)

**DESCRIPTION**

UltraVision LPValue is the latest technology in polymeric labeling. Polymer detection methods have been shown to provide increased sensitivity and detection simplicity. This third-generation polymer system is composed of smaller polymer subunits that minimize conflicts in binding the target protein. Decreased binding conflicts result in more consistent staining and better signal amplification.<sup>1</sup> Ultimately, this gives the user higher sensitivity and antibody efficiency.<sup>2</sup> With UltraVision LPValue, you use less antibody and obtain better signal-to-noise ratios. UltraVision LPValue is also biotin-free, which eliminates background staining found with traditional biotin-based detection methods.

**PRINCIPLE OF THE PROCEDURE**

This UltraVision detection system detects a specific mouse IgG or rabbit IgG antibody bound to an antigen in tissue sections. The specific antibody is located by a universal secondary antibody formulation conjugated to an enzyme-labeled polymer that recognizes mouse and rabbit immunoglobulins. The polymer complex is then visualized with an appropriate substrate/chromogen.

**WARNINGS & PRECAUTIONS**

Refer to MSDS.

**STORAGE & SHELF LIFE**

Store at 2-8°C. Each component is stable for 18 months.

**MICROBIOLOGICAL STATE**

Product(s) not sterile.

**MATERIALS REQUIRED BUT NOT PROVIDED**

Primary antibody. Diluent.

## SPECIMEN & REAGENT PREPARATION

Refer to Procedure.

## PROCEDURE

### **STAINING PROTOCOL (kit components in bold):**

1. Deparaffinize and rehydrate tissue section.
2. Wash 2 times in buffer.
3. If required, incubate tissue in digestive enzyme (or appropriate pretreatment).
4. Wash 4 times in buffer.
5. Apply **Ultra V Block** and incubate for 5 minutes at room temperature to block nonspecific background staining. **NOTE:** Do not exceed 10 minutes or there may be a reduction in desired stain. (May be omitted if primary antibodies are diluted in buffers containing 5-10% normal goat serum.)
6. Wash (Optional).
7. Apply primary antibody and incubate according to manufacturer's recommended protocol.
8. Wash 4 times in buffer.
9. Apply **Value Primary Antibody Enhancer** and incubate for 20 min at room temperature.
10. Wash 4 times in buffer.
11. Apply **Value AP Polymer** and incubate for 30 minutes at room temperature.
12. Wash 4 times in buffer.
13. Incubate with phosphatase-compatible chromogen of choice according to manufacturer's recommendations. Modify incubation time to optimize staining in your laboratory.
14. Wash 4 times in DI water.
15. Counterstain and coverslip using an aqueous mounting media.

The specificity and sensitivity of antigen detection is dependent on the specific primary antibody used.

## REFERENCES

1. Shan-Rong Shi, James Guo, Richard J. Cote, Lillian Young, Debra Hawes, Yan Shi, Sandra Thu, and Clive R. Taylor, Applied Immunohistochemistry & Molecular Morphology, vol 7, 201-208, 1999.
2. Karen Petrosyan, Rosalba Tamayo, and Daisy Joseph, "Sensitivity of a Novel Biotin-free Detection Reagent (PowerVision+) for Immunohistochemistry" J. Histotechnology, vol 25, 247-250, 2002.

## TROUBLESHOOTING

Please contact Thermo Fisher Scientific Technical Support by phone (1-510-991-2800 or 1-800-828-1628) or by email (lab.reagents@thermofisher.com).