

**UltraVision LP Large Volume Detection System
HRP Polymer (Ready-To-Use)**

INTENDED USE

For In Vitro Diagnostic Use

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

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

REAGENTS

Qty.	Component	TL-060-HL	TL-125-HL
1	Ultra V Block	TA-060-UB	TA-125-UB
1	Primary Antibody Enhancer	TL-060-PB	TL-125-PB
1	HRP Polymer	TL-060-PH	TL-125-PH

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

DESCRIPTION (New protocol: See changes high-lighted below)

UltraVision LP is the latest technology in polymeric labeling. Polymer detection methods have been shown to provide increased sensitivity and detection simplicity. This second-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.¹ Ultimately, this gives the user higher sensitivity and antibody efficiency.² With UltraVision LP, you use less antibody and obtain better signal-to-noise ratios. UltraVision LP 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. To reduce nonspecific background staining due to endogenous peroxidase, incubate slide in Hydrogen Peroxide Block for 10 minutes.
6. Wash 4 times in buffer.
7. 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.)
8. Wash (Optional).
9. Apply primary antibody and incubate according to manufacturer's recommended protocol.
10. Wash 4 times in buffer.
11. Apply **Primary Antibody Enhancer** and incubate for 10 min at room temperature.
12. Wash 4 times in buffer.
13. Apply **HRP Polymer** and incubate for 15 minutes at room temperature. (**NOTE:** HRP Polymer is light sensitive. Please avoid unnecessary light exposure and store in opaque vial.)
14. Wash 4 times in buffer.
15. Incubate with peroxidase-compatible chromogen of choice according to manufacturer's recommendations. Modify incubation time to optimize staining in your laboratory.
16. Wash 4 times in DI water.
17. 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).