Please note this data sheet has been changed effective July 13, 2018

UltraVision LP Detection System HRP DAB

For In Vitro Diagnostic Use

INTENDED USE

The product is intended for the visualization of antigens in immunohistochemistry analysis

AVAILABILITY:

Catalog #	Slide Volume
TL-015-HD	75-150 slides
TL-060-HD	300-600 slides
TL-125-HD	625-1250 slides

SPECIFICITY: Anti-Mouse IgG (H+L), Anti-Rabbit IgG (H+L)

ENZYME: Peroxidase

CHROMOGEN/SUBSTRATE: Diaminobenzidine (DAB)

REAGENTS

Qty.	Component	TL-015-HD	TL-060-HD	TL-125-HD
1	UltraVision Hydrogen Peroxide Block	TA-015-H2O2Q	TA-060-H2O2Q	TA-125-H2O2Q
1	UltraVision Protein Block	TA-015-PBQ	TA-060-PBQ	TA-125-PBQ
1	Primary Antibody Enhancer	TL-015-PB	TL-060-PB	TL-125-PB
1	HRP Polymer	TL-015-PH	TL-060-PH	TL-125-PH
1	DAB Quanto Substrate	TA-015-QHSX	TA-060-QHSX	TA-125-QHSX
1	DAB Quanto Chromogen	TA-001-QHCX	TA-002-QHCX	TA-004-QHCX

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

DESCRIPTION

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

In the case of accidental spill, clean and dispose of material according to your laboratory's SOP, local, and state regulations.

In the case of damaged packaging on arrival, contact your technical support representative (refer to contact details listed).

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IVD

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Reagents used in the product:

WARNING. TA-XXX-H2O2Q contains 3 % hydrogen peroxide. H319 – Cause serious eye irritation. H335 – May cause respiratory irritation.

DANGER. TA-XXX-PBQ contains < 1 % Bovine serum albumin, and < 0.5 % Triton-X 100. H317 – May cause allergic skin reaction. H334 – may cause allergy or asthma symptoms or difficulty breathing.

WARNING: TA-XXX-QHSX contains less than 10% 3-3'-diaminobenzidine tetrahydrochloride. H341 - Suspected of causing genetic defects. H351 - Suspected of causing cancer

Refer to individual SDS for additional precautions, handling instructions, disposal and accidental exposure treatment.

SDS Document Number	Components covered in SDS
TA-XXX-H2O2Q (SDS)	TA-XXX-H2O2Q
TA-XXX-PBQ (SDS)	TA-XXX-PBQ
NONHAZ SDS	TL-XXX-PB, TL-XXX-PH
TA-XXX-QHSX (SDS)	TA-XXX-QHSX
NONHAZ (SDS)	TA-XXX-QHCX

STORAGE & SHELF LIFE

Store at 2-8°C. Each component is stable for up to 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 **UltraVision Hydrogen Peroxide Block** for 10 minutes.
6. Wash 4 times in buffer.
7. Apply **UltraVision Protein 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.

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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. Add 1 drop (30 µl) **DAB Quanto Chromogen** to 1 ml of **DAB Quanto Substrate**, mix by swirling and apply to tissue. Incubate for 5 minutes, depending on the desired stain intensity.
16. Wash 4 times in DI water.
17. Counterstain and coverslip using a permanent 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 (1-269-544-5600 or 1-800-522-7270) or by email (lab.reagents@thermofisher.com).

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