Please note this data sheet has been changed effective November 24, 2014

UltraVision Quanto Detection System HRP

INTENDED USE

For In Vitro Diagnostic Use

AVAILABILITY:

Catalog #	Slide Volume
TL-060-QHL	300-600 slides
TL-125-QHL	625-1250 slides

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

REAGENTS

Qty.	Component	TL-060-QHL	TL-125-QHL
1	UltraVision Protein Block	TA-060-PBQ	TA-125-PBQ
1	Primary Antibody Amplifier Quanto	TL-060-QPB	TL-125-QPB
1	HRP Polymer Quanto	TL-060-QPH	TL-125-QPH

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

DESCRIPTION

UltraVision Quanto is the technology of this decade in polymeric labeling. Polymer detection methods have been shown to provide increased sensitivity and detection simplicity. This innovative micropolymer technology has major advantages over conventional IHC systems as it allows the "detector" to readily penetrate to the nuclear membrane enabling the user to detect nuclear antigens without sacrificing the ability to stain cytoplasmic and membrane antigens. UltraVision Quanto amplifies the signal with both mouse and rabbit primary antibodies making it versatile and easy to use. Background noise due to nonspecific binding to endogenous biotin molecules is eliminated because UltraVision Quanto is not a biotin/avidin based system. The signal to noise ratio is further enhanced to detect low antigen expression or compensate for low primary antibody affinity by utilizing highly purified secondary antibodies and enzymes. The UltraVision Quanto ultimately provides the user with a rapid, easy to use, and versatile IHC detection system that offers superior staining of tissues traditionally thought difficult to visualize.

PRINCIPLE OF THE PROCEDURE

UltraVision Quanto Detection System detects mouse or rabbit 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 antibodies. 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 up to 24 months.

MICROBIOLOGICAL STATE

Product(s) not sterile.

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IVD

EC REP

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MATERIALS REQUIRED BUT NOT PROVIDED

Primary antibody. Diluent.

SPECIMEN & REAGENT PREPARATION

Refer to Procedure.

PROCEDURE

STAINING PROTOCOL (kit components in bold):
All steps are performed at room temperature.

1. Deparaffinize and rehydrate tissue section.
2. Buffer wash step.
3. If required, incubate tissue in appropriate pretreatment or digestive enzyme.
4. Buffer wash step.
5. To reduce nonspecific background staining due to endogenous peroxidase, incubate slide in **UltraVision Hydrogen Peroxide Block** for 10 minutes.
6. Buffer wash step.
7. Apply **UltraVision Protein Block** and incubate for 5 minutes 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. Blow step.
9. Apply primary antibody and incubate according to manufacturer's recommended protocol.
10. Buffer wash step.
11. Apply **Primary Antibody Amplifier Quanto** and incubate for 10 min.
12. Buffer wash step.
13. Apply **HRP Polymer Quanto** and incubate for 10 min. (**NOTE:** HRP Polymer Quanto is light sensitive. Please avoid unnecessary light exposure and store in opaque vial.)
14. Buffer wash step, followed by DI water and buffer wash steps.
15. Add 30 µl (1 drop) **DAB Quanto Chromogen** to 1 ml of **DAB Quanto Substrate**, mix by swirling and apply to tissue. Incubate for 5 minutes.
16. DI water wash step.
17. Counterstain and coverslip using a permanent mounting media.

Note: For manual slide staining, 2-4 wash steps are needed between reagent applications to achieve optimal staining intensity.

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

LIMITATIONS:

The Immunohistochemistry staining results can vary depending on several factors. These include, but are not limited to: fixation method and time, heat-retrieval method, incubation times, tissue section thickness choice of antibody and its final working dilution and detection kit used.
The data sheet recommendations and protocols are based on exclusive use of Thermo Fisher Scientific products.
Ultimately, it is the responsibility of the laboratory to determine optimal conditions.
The clinical interpretation of any positive or negative staining should be evaluated within the context of clinical presentation, morphology and other histopathological criteria by a qualified pathologist.
The clinical interpretation of any positive or negative staining should be done in the context of morphological studies using proper positive and negative internal and external controls as well as other diagnostic tests.

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.

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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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