# **RUO** (Research-use-Only)

# MicroStacker<sup>TM</sup> Mouse-on-Mouse Polymer Detection Kit Instruction For Use

### [Product Name]

MicroStacker<sup>TM</sup> Mouse-on-Mouse Polymer Detection Kit

## [Packing Specification]

20 test/kit, 100 test/kit, 200 test/kit, 300 test/kit, 1000 test/kit

# [Intended Use]

The MicroStacker<sup>TM</sup> Mouse-on-Mouse Polymer Detection Kits are specially designed to localize mouse primary antibodies on mouse tissues with minimum cross-reactivity to endogenous Mouse IgG in immunohistochemical procedures.

## [Test Principle]

The MicroStacker<sup>TM</sup> technology allows well-controlled layered stacking of F(ab') fragments of IgG secondary antibody and peroxidase enzymes on a micro-polymer scaffold, which results in a compact polymeric structure with superior sensitivity compared to other conventional HRP polymers with bulky dextran backbones. This system avoids the use of streptavidin and biotin, and therefore eliminates non-specific staining as a result of endogenous biotin. Herein, the Mouse-on-Mouse Polymer comprises of specially engineered anti-Mouse secondary antibody to eliminate the high backgrounds caused by endogenous mouse antibodies in mouse tissues.

#### [Main Components]

It is mainly composed of peroxidase blocking reagent, anti-mouse/rabbit HRP-polymer, DAB substrate (20×), substrate buffer and hematoxylin.

#### [Storage and validity]

Store at 2~8°C. Return to 2~8 °C immediately after use.

The product is stable up to the expiration date listed on the product label.

## [Recommended Instrument]

Brightfield microscope  $(4 \times \sim 40 \times)$ 

#### [Specimen Requirements]

This product can be used on formalin-fixed paraffin-embedded (FFPE) tissue slides and acetone-fixed frozen sections.

### [Test Method]

1. Instruments and Equipment

Pipette, Hydrophobic Pap Pen, timer, slide staining jar, slide staining tray, slide staining rack, coverslip, brightfield microscope, wash bottle.

2. Preparation of Working Solutions

The Mouse-on-Mouse HRP Polymer is ready-to-use and requires no further preparation. DAB staining solution: prepared by 1:20 ratio of DAB substrate and DAB buffer solution. Prepare the DAB chromogenic solution right before use.

- 3. Experimental Procedures
- 3.1 For paraffin sections, deparaffinize slides in xylene. Hydrate slides in a series of graded alcohols to water.
- 3.2 Peroxidase Block: Block for 5mins with Peroxidase Blocking Reagents. Rinse 2 times with wash buffer for 5mins each.
- 3.3 Antigen Retrieval Protocol: Please refer to the respective primary antibody data sheet for recommended antigen retrieval protocol.
- 3.4 Primary Antibody: Apply 2 drops (100ul) or as much as needed of ready-to-use primary antibody to cover the specimen. Incubate for 30-60mins at RT. Rinse 2 times with wash buffer for 5mins each.
- 3.5 Detection Polymer: Apply 2 drops (100ul) or as much as needed of anti-Mouse/Rabbit HRP-Polymer to cover the specimen. Incubate for 10-20 mins at RT. Rinse 2 times with wash buffer for 5mins each.
- 3.6 DAB Chromogen: Apply 2 drops (100ul) or as much as needed of DAB chromogenic solution to cover the specimen. Incubate for 5 mins at RT. Rinse slides with deionized water.
- 3.7 Counterstain: Counterstain with hematoxylin. Rinse slides with deionized water.
- 3.8 Dehydrate, clear and coverslip.

## [Reference Range]

The kit is a staining reagent, has no reference range.

## [Results Interpretation]

The staining results must be based on the positive and blank control experiments:

positive: the target antigen site shows brown staining.

Negative: no brown staining.

#### [Test Limitations]

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

# [Cautions]

- 1. The reagent must be used within the validity period by strictly trained professionals. If leakage, contamination, or deterioration are found, do not use it.
- 2. Proper protective measures should be taken to avoid contact with the skin and eyes. The product should not be inhaled into the mouth. If the reagents contacts with the skin, mucosa and other parts of the body, a large amount of water should be used in time to wash.
- 3. Improper antigen retrieval, incubation, temperature conditions, or other application methods may lead to incorrect results.
- 4.DAB has a potential mutagenic effect, special attention should be paid to safety precautions during use. The storage and detoxication of waste liquid after use should also comply with relevant laws and regulations.

# [Symbols]

Symbol	Used for	Symbol	Used for
<u> </u>	Use-by date	(i)	Consult instructions for use
LOT	Batch code	IVD	In vitro diagnostic medical device
X	Temperature limit	<b></b>	Manufacturer
RUO	Research-use-Only	M	Date of manufacture

# [Basic Information]



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