PolyStacker™ anti-Mouse Detection Kit

Instruction For Use

RUO

[Product Name]

PolyStacker™ anti-Mouse Detection Kit

[Catalog No.]

SD7001

[Specification & Components]

Name	Specification		
	50-100 tests/kit	100-200 tests/kit	300-600 tests/kit
Peroxidase Block	5mL	10mL	30mL
Anti-Mouse HRP-Polymer	5mL	10mL	30mL
DAB Chromogen (20x)	0.3mL	0.5mL	1.5mL
DAB Substrate Buffer	5mL	10mL	30mL
Hematoxylin	5mL	10mL	30mL

Materials and Reagents needed but not provided: Frozen Section Fixative (Catalog number: SD7004); Frozen Section Wash Buffer (10x) (Catalog No. SD7005); Blank control reagent: Primary Antibody Diluent (Catalog number: SD2005).
Other reagents needed: primary antibody; xylene; ethanol (anhydrous, 95%, 85%, 70%); purified water; neutral balsam (mounting medium).

[Intended Use]

For Research Use Only.

[Summary and Explanation]

The PolyStacker™ anti-Mouse Detection Kit is a 1-step polymer detection system that allows for demonstration of antigens in cryostat sections. Proprietary PolyStacker™ technology allows orientation-specific attachment of Fab' fragment of IgG on the poly-HRP core based on micropolymer scaffolds. Removal of the Fc part of IgG avoids non-specific signal from endogenous Fc receptors, while the compact polymer structure induces its excellent penetration into all cellular compartments. Besides, the polymer is specially engineered to push its sensitivity to the limit, thus accommodates the rapid staining protocol. The kit is suitable for use with Celnovte's FastFrozen IHC mouse primary antibodies.

[Storage and Validity]

Store at 2~8℃. Avoid freezing. Valid for 12 months.

Return to 2-8℃ immediately after use.

[Recommended Instrument]

micro pipette, IHC Pap-Pen, timer, IHC wet box, staining rack, cover slide, and bright field microscope

[Specimen Requirements]

1.Embed the specimen in OCT embedding medium inside a cryostat.
2.Cut sections at 5~8 μm and mount on a charged glass slide.
3. The slides can be processed with or without antigen retrieval according to the target of interest. Refer to IFU of the FastFrozen primary antibodies to determine appropriate pre-treatment protocol.
4. To ensure accurate results, it is important to complete the staining process on the same day as the tissue fixation.

[Test Method]

1. Prepare working solutions
1.1 Wash Buffer: Prepare the wash buffer from Frozen Section Wash Buffer (10X).
1.2 DAB working solution: Mix DAB Substrate (20x) and DAB Substrate Buffer in a ratio of 1:20.
2. Before experiment, make sure all the reagents are warmed up to room temperature: 20℃～25℃。
3. Staining Protocol:
3.1 Fixation: Fix the specimen in Frozen Section Fixative for 30s ~1min, rinse with diH_2O to remove OCT embedding agent.
3.2 Antigen retrieval: Refer to the product insert of the FastFrozen primary antibody.
3.3 Peroxidase Block: Rinse the slide with diH_2O. Use a IHC pap-pen to draw a circle around the tissue specimen. Add Peroxidase Blocker to the specimen and incubate for 30s. Rinse the slide with wash buffer for 30s.
3.4 Primary Antibody: Remove the wash buffer. Incubate with the corresponding FastFrozen primary antibody for 2~4mins. Rinse with wash buffer for 1min.
3.5 Detection Polymer: Remove the wash buffer, incubate with Anti-Mouse HRP-Polymer for 2~3mins. Rinse with wash buffer for 2mins.
3.6 DAB Chromogen: Remove the wash buffer, incubate with DAB working solution for 2mins. Rinse with diH_2O.
3.7 Counterstain: Incubate with hematoxylin for 10~15s. Rinse with diH_2O.
3.8 Dehydrate, clearing, and coverslip based on routine protocols.

[Quality Controls]

Positive control: Used to indicate correctly prepared tissues and proper staining techniques. One positive tissue control should be included for each set of test conditions/primary antibody in each staining run.
Blank control: Use the blank control reagents to replace the primary antibody in the staining protocol. Include a blank control for each staining run for better identification of non-specific staining and more precise interpretation of the specific staining signal.

[Results Interpretation]

The staining results must be based on the positive and negative control experiments:
positive: the target antigen site shows brown staining.
Negative: no brown staining.
Results Interpretation should be determined by a qualified pathologist.

[Test Limitations]

1.Proper pre-treatment of tissue specimen is crucial for precise

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staining results. Improper fixation, freezing, thawing, washing, drying, sectioning, or contamination may lead to false positive results, or false negative results.
2.Over or insufficient counterstain may impact the result interpretation.
3.The variability of antigen expression in diseased tissue may lead to unintended reactions during testing.
4.False positive results can result from non-immunological binding of protein or substrates.

[Cautions]

1.Only trained professionals should use this reagent. Do not use if there is leakage or contamination. Do not use if expired.
2.If mix-use the components of this kit with products from other companies, results cannot be guaranteed.
3.Take appropriate safety measures when using this reagent. Avoid skin or eye contact. Avoid ingestion, or inhalation. If contact occurs, rinse with plenty of water.
4.Many factors such as antigen retrieval, incubation time, temperature may affect the testing results.
5.DAB substrate is mutagenic. Follow safety precautions during use. Refer to relevant laws and regulations for the storage and disposal of the waste liquid.

[Symbols]

The following symbols may be found in this IFU or on the product labeling. Some glossary symbols may not be applicable to this product.

Symbol	Used for	Symbol	Used for
	Expiration Date		Consult instructions for use
LOT	Lot Number	RUO	For Research Use Only.
	Storage Temperature		Manufacturer
REF	Catalogue number		Date of manufacture

[Version]

Revision date: 2024-01-02
Version: 01; Change Summary: new.

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