



LRM System (DAB Gold)

REF 014-2010
Wave Anti-Mouse DAB Gold Detection Kit

REF 014-2011
Wave Anti-Rabbit DAB Gold Detection Kit

INTENDED USE

IVD For in vitro diagnostic use.

The Wave LRM (Linear Reagent Magazine) system is intended for laboratory use to detect antibodies bound to antigens on test tissues using immunohistochemistry.

Positive results aid in the classification of normal and abnormal cells/tissues and serve as an adjunct to conventional histopathology. The clinical interpretation of any positive staining or its absence should be complemented by morphological and histological studies with proper controls. Evaluations should be made by a qualified individual in conjunction with the patient's clinical history and other diagnostic tests.

Refer to the Wave Instrument Operator's Manual for additional information concerning Materials Required but Not Provided; Storage; Staining Procedure; Troubleshooting; Interpretation of Staining; and General Limitations.

SUMMARY AND EXPLANATION

The LRM system contains the necessary reagents for the sequential steps of immunohistochemistry including a peroxidase blocking reagent applied prior to the primary antibody. Additional reagents include anti-mouse and/or anti-rabbit secondary antibodies, chromogen, substrate buffer, hematoxylin and wash buffer.

The LRM system is recommended for use on paraffin-embedded tissues and on frozen tissues and cytology preparations.

The LRM system is ready-to-use, and is packaged for direct insertion onto the Wave instrument. Together with Celerus Diagnostic primary antibodies, these reagents make up a complete immunohistochemical test system when used on the Wave instrument.

PRINCIPLE OF PROCEDURE

Immunohistochemistry is a multi-step process to identify specific cell markers within tissue biopsies or tumor specimens. The sequential steps include antigen retrieval (optional), antibody application, and antibody visualization followed by optional counterstaining. Specimens are then coverslipped and observed under light microscopy by trained personnel. Normally, multiple antibodies are tested to determine lineage and cell cycle markers. The Celerus Wave is an automated instrument that performs immunohistochemistry stains. For further information on the staining procedure, refer to the Celerus Wave Operator's Manual.

MATERIALS PROVIDED

The LRM contains separate compartments which hold peroxidase block, secondary antibody/Polymer, DAB Substrate, Hematoxylin Counterstain and Wash Buffer respectively. The reagents supplied are sufficient to stain 80 slides. The system does not allow for reuse or refilling after the 80 slides have been stained.

MATERIALS REQUIRED BUT NOT PROVIDED

1. Wave instrument
2. Wave slide rack
3. Positively-charged microscope slides, appropriately labeled
4. Timer
5. Celerus Riptide for antigen retrieval (or equivalent)
6. Celerus Target Retrieval Solution (or equivalent)
7. Slide drying chamber
8. Xylene or xylene substitute
9. Reagent alcohol or ethyl alcohol
10. Distilled or deionized water
11. TBS wash buffer, pH 7.6
12. Positive and negative tissue controls
13. Celerus Negative Control Reagent (or equivalent)
14. Mounting Medium
15. Cover slips

STORAGE AND HANDLING

Store LRM at 2-8 °C. Do not freeze. The reagents are stable up to the expiration date on the container. Do not use LRM after the expiration date, as the activity cannot be ensured.

There are no signs to indicate instability of these reagents. To ensure a valid staining assay, the use of positive and negative tissue controls is recommended. Contact your Celerus representative if there are stability concerns prior to the expiration date.

PRECAUTIONS

1. For professional users.
2. Minimize microbial contamination of reagents or an increase in nonspecific staining may occur.

3. As with any product derived from biological sources, proper handling procedures should be used.
4. A Material Safety Data Sheet is available for professional users on request.
5. ProClin 300 and sodium azide (NaN₃), used for stabilization, are not considered toxic in the concentrations used. ProClin 300 is classified per applicable European Community (EC) Directives as: Irritant (Xi). Sodium azide deposits in drainage pipes made of lead or copper can result in the formation of highly explosive metallic azides. To avoid such deposits in drainage pipes, sodium azide should be discarded in a large volume of running water. The following are the appropriate Risk (R) and Safety (S) phrases.



R22 Harmful if swallowed

R36/37/38 Irritating to eyes, respiratory system and skin

R40 Limited evidence of carcinogenic effect

R43 May cause sensitization by skin contact

R68 Possible risk of irreversible effects

S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S29/56 Do not empty into drains; dispose of this material and its container in a safe way

S37/39 Wear suitable gloves and eye/face protection

S46 If swallowed seek medical advice immediately and show this container or label

S49 Keep only in original container

WASTE DISPOSAL

Adhere to all local laws when disposing of the LRM.

PACKAGING DAMAGE

DO NOT USE an LRM if it is leaking, has leaked, has spilled, cannot be primed, or has visually apparent physical damage.

SPECIMEN COLLECTION AND HANDLING

Formalin-fixed paraffin embedded (FFPE) tissues, frozen tissues, or smears are suitable for use.

Formalin-fixed paraffin embedded tissues

DAB Gold LRM system has been optimized for tissues fixed with 10% formalin. Ideally, each 4-6µ tissue section should be placed on charged slides on the lower 2/3 of the slide. Very large sections should be placed 1/4 inch below the lower end of the slide label.

Slides should be baked overnight at 37 °C, or at 60 °C for one hour.

Use standard histochemical techniques to deparaffinize processed slides. If specified by the antibody Package Insert, perform antigen retrieval as instructed. Generally antigen retrieval using Celerus Target Retrieval Solution (or equivalent) is performed prior to IHC staining.

Frozen Tissues and Cytology Samples

DAB Gold LRM system has been optimized for frozen tissues and cytology samples fixed with acetone. Ideally, each frozen section should be cut at 4-8µ and placed on charged slides on the lower 2/3 of the slide.

Slides fixed in cold acetone for one minute followed by complete air-drying have been shown to give acceptable staining. Target Retrieval is not required for samples fixed in acetone.

Insert slides into the Wave instrument according to the staining grid provided by the instrument software. Avoid drying of the tissue specimen during this process. After all slides to be stained have been inserted and reagents mounted on the instrument, start the staining run.

When the slides have completed the staining run, remove them from the instrument, coverslip, and view under light microscopy.

MOUNTING FINISHED SLIDES

The DAB chromogen is insoluble in organic solvents and can be permanently mounted.

RESULTS EXPECTED

The DAB Gold LRM system yields a golden-brown to dark brown stain at the site of antigen-antibody complexes. The optional hematoxylin counterstain, when selected, yields a blue stain of cell nuclei to aid in assessment of cellular structures. Any unwanted staining or overstaining may require repeat testing. If retesting is required, follow the staining procedure outlined in the Celerus Wave Operator's Manual, with special care taken for deparaffinization and antigen retrieval. Over or under-fixed tissue may give erroneous results.



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