Citrate Buffer for Heat-Induced Epitope Retrieval

INTENDED USE

For In Vitro Diagnostic Use

	Catalog #	Volume
AVAILABILITY:	TA-050-CBX	50 ml (100X)

SPECIFICITY: N/A
ENZYME: N/A
CHROMOGEN/SUBSTRATE: N/A

DESCRIPTION

Formaldehyde fixation impairs or totally destroys the immunoreactivity of many antigens and epitopes. The negative effect of formaldehyde fixation can be reversed successfully with enzymatic digestion for some markers while not for others. Non-enzymatic epitope unmasking techniques have been recently introduced to improve the immunoreactivity of many antigens in formaldehyde fixed tissues. Heat-Induced Epitope Retrieval (HIER) in citrate buffer has been reported to improve the reactivity of many antibodies in formal-fixed tissues.

WARNINGS & PRECAUTIONS

Refer to MSDS.

STORAGE & SHELF LIFE

Store at room temperature. Each component is stable for 18 months. This buffer contains no preservative. Store product at 2-8°C for storage longer than 3 months.

MICROBIOLOGICAL STATE

Product(s) not sterile.

MATERIALS REQUIRED BUT NOT PROVIDED

N/A

SPECIMEN & REAGENT PREPARATION

Refer to Procedure.

PROCEDURE

Supplied As:
1M Citrate buffer, pH 6.0. This is a 100X stock solution and must be diluted 100-fold with distilled water before use. The final solution should be pH 6.0 ± 0.2. If solution requires pH adjustment, use 1N NaOH or 1N HCl.
Place five-micron thick tissue sections on glass slides coated with poly L-lysine or APTES.

1. Deparaffinize and re-hydrate sections as usual.
2. Place slides in a Coplin jar containing 10mM sodium citrate buffer, pH 6.0; cover with a vented plastic wrap and place the jar in microwave and set high power to boil and set low power to keep it boiling for 10 min. Let the sections cool in the microwave for at least 20 min. ***THIS STEP IS VERY CRITICAL AND SHOULD NOT BE AVOIDED.***
3. Wash sections in buffer for 2x5 minutes.
4. Block endogenous peroxidase as usual.
5. Wash sections in buffer for 2x5 minutes.
6. Block non-specific sites with normal serum as usual.
7. Place optimally diluted primary antibody on the sections (incubation time and temperature for a given set of experimental conditions should be determined by the investigator).

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8. Wash sections in buffer for 2x5 minutes.
9. Rest of the procedure is same as routinely performed in your laboratory.

Suggested Working Dilution:
Immunohistology: 1:100 with distilled water.

Suggested Test Size:
It is recommended that at least 75 ml of Citrate buffer should be used for 12 slides.

REFERENCES

N/A

TROUBLESHOOTING

Please contact Thermo Fisher Scientific Technical Support by phone (1-510-991-2800 or 1-800-828-1628) or by email (lab.reagents@thermofisher.com).

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