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CITRATE BUFFER (10x concentrated) pH 6.00

PRESENTATION:

Concentrated (10x) buffered saline, with a final pH of 6.00[1]. The presentations for this product are as follows:

Reference	Concentrated volume (mL)	Final volume (mL)
MAD-004071R	100	1000
MAD-004071R-10	1000	10000

SPECIFICITY, INTERFERENCES AND LIMITATIONS:

The citrate buffer solution is employed in heat-induced antigen retrieval methods. Certain antibodies require these antigen retrieval methods when used on buffered formalin-fixed and paraffin-embedded material in order to recover the immunoreactivity that had been masked by the fixation process.

APPLICATIONS:

Heat-induced antigen retrieval has markedly improved antigen immunohistochemical staining in traditional surgical pathology. The use of these techniques presents its best advantages in the case of nuclear antigens where a remarkable increase in the immunohistochemical signal intensity has been observed.

PRODUCT COMPOSITION:

100 mM Na-Citrate pH 6.0

RECOMMENDATIONS FOR USE:

Before start using the product: This solution is 10x concentrated, so before its use it must be diluted 1:10 with double-distilled or deionized water (1 part of citrate buffer and 9 parts of water).

1- Cut and mount the sections on silane-treated slides.

2- Deparaffinize and hydrate the tissue sections.

3- Heat-induced retrieval: For the retrieval process, the diluted citrate buffer is used. This retrieval process can be performed using different methods[1]:

3.1- Retrieval in a microwave oven: Place the sections in the diluted citrate solution (Coplin jar or large volume container depending on the considered antibody and experience of each laboratory) and put it into a microwave oven at 700 W (Watts) for a period of time

[1] The product is not intended for use in the PT module

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depending on the type of antigen to be detected (in general, 10-15 minutes), programming 5-minute periods to check the buffer level since the
preparations must always be immersed in liquid. Allow to cool to room temperature.

3.2- Retrieval in a pressure cooker: Fill the pressure cooker with 1-2 litres of diluted citrate solution. Heat while the sections are being hydrated, avoiding boiling; immerse the sections in the preheated buffer and close the cooker lid. Wait until the pressure regulator goes up to the second position and, since then, time 1-2 minutes (depending on the antigen to be retrieved). Remove and cool the cooker (it can be sped up by placing the cooker under running water). Open the lid once depressurised and let the slides cool inside the cooker for 20-30 minutes.

4.- Remove sections and place them in TBS, pH 7.50.

5.- Proceed to immunostaining process.

SAFETY RECOMMENDATIONS:

This product is intended only for professional use in a laboratory, not as a drug, for domestic use or for other purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching its reference on www.vitro.bio or it can be requested at regulatory.md@vitro.bio.

STORAGE:

Store at room temperature away from intense heat/cold sources until the expiry date of the product.

BIBLIOGRAPHY:

Norton A.J., et al; Brief, high temperature heat denaturation (pressure-cooking): a simple and effective method of antigen retrieval for routinely processed tissues. J Pathol 173 (4): 371-391(1994).

Clive R. Taylor, M.D., Ph.D., Shan-Rong Shi, M.D., and Richard J. Cote, M.D. Appl Inmunohistochem 4 (3): 144-166, 1996

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