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EDTA Buffer 10x

PRESENTATION:

Concentrated buffer solution (10 x), with a final pH of 8.0. Presentations for this product are:

Reference	Concentrated solution (mL)	Final diluted solution (mL)
MAD-004072R	100	1000
MAD-004072R-5	500	5000

INTENDED USE:  Product for in vitro diagnostic use

SPECIFICITY, INTERFERENCE AND LIMITATIONS:

EDTA buffer is used in methods for heat induced antigen retrieval (HIER). When used on material fixed in buffered formalin and embedded in paraffin, certain antibodies require antigen unmasking for retrieving the immunoreactivity that had been masked by the fixing process.

APPLICATIONS:

The HIER has improved immunohistochemical staining in conventional surgical pathology as it improves the antigen unmasking and the staining intensity. The use of these techniques has its best advantages in case of nuclear antigens that presents a marked increase in signal intensity.

No previous dewaxing step is necessary, as this product has been design as an all-in-one solution that is suitable for simultaneous dewaxing and heat induced antigen retrieval.

PRODUCT COMPOSITION:

10mM EDTA pH8.0.

RECOMMENDATIONS FOR USE:

Before use: The EDTA solution is 10x concentrated and therefore before use it should be diluted in a 1:10 range with distilled or deionized water (one part EDTA buffer and 9 parts water).

1. - Cut and mount sections on charged slides or silane coated.
2. - Dewaxing (using xylene or substitute) and rehydrate the tissue sections thru decreasing series of alcohol. Then follow with the step 3 and 4.
3. - Unmasking: various alternative methods could be used to carry out the antigen retrieval process using the diluted EDTA buffer:

3.1 Unmasking in microwave: Place the sections in the diluted solution of EDTA (Coplin jar or other container with a volume as large as the laboratory considers) and bring the microwave oven at 700 watts (watt) for 10-15 minutes. Cool to room temperature.

3.2 Unmasking in pressure cooker: Fill the pressure cooker with 1-2 litres of dilute EDTA buffer. While hydrating the slides, heat the solution avoiding boiling. Then immerse the sections in the preheated buffer and close the pressure cooker. Wait until the pressure rises to the second notch and run from here 1-2 minutes (depending on the antigen unmasking). Remove and cool the pot (you can speed up the process placing the pot under running water). Open when no pressure and cool the slides inside of the pot for 20-30 minutes.

Note: *this product is not suitable for simultaneous dewax, rehydrate and antigen retrieval in automated systems (like Thermo Fisher's Pt Module or Dako's Pt Link). For these, please use the alternative products, refs. MAD-004072R/D and MAD-004072R/D-5*

4. - Remove the sections and place them into the usual washing buffer (recommended TBS / TBS-Tween pH 7.5 – reference MAD-004077R)

5. - Proceed with the immunostaining protocol as usual.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

STORAGE:

Store until the expiry date of the product at 15-25°C, away from any sources of intense heat or cold.

BIBLIOGRAPHY:

1. 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).
2. Clive R. Taylor, M.D., Ph.D., Shan-Rong Shi, M.D., and Richard J. Cote, M.D. Appl Immunohistochem 4 (3): 144-166, 1996
3. Suthipintawong C., et al; Immunostaining of cell preparations: a comparative evaluation of common fixatives and protocols. *Diagn Cytopathol* 15: 167-174 (1996)

LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Health product for in vitro diagnosis.		Expiration date
	Catalog number		Temperature limit
	Lot code		Manufacturer
	Refer to the instructions of use		Sufficient content for <n> assays
	Material safety data sheet		