

# OSTEOFAST 2

IVD In vitro diagnostic medical device



## Light yellow decalcifying medium for bone and hard tissue in histology INSTRUCTIONS FOR USE

REF Product code: OF2-OT-1L (1000 ml) OF2-OT-2.5L (2500 mL)

### Introduction

It is necessary to conduct decalcification of bones and other hard tissue for the purpose of microscopic analysis of the sample during regular histological processing. The sample is completely immersed in the decalcifying solution. The length of time needed for demineralization (decalcification) depends on the size and density of the treated sample. Bone and hard tissue decalcification requires inorganic or organic acids, or chelating reagents. OsteoFast 2 consists of inorganic formic acid. It rapidly removes calcium, that way softens the tissue and makes it ready for further processing. Test samples are bone and hard tissue (teeth) and keratinized tissue (filiform warts, nails). OsteoFast 2's light yellow color distinguishes the product from other BioGnost's products for decalcification (light blue OsteoFast 1 and colorless OsteoSens). Because of this, it can also be distinguished from other fixatives and solvents used in histological laboratories.

### Product description

- **OSTEOFAST 2** - Light yellow decalcifying medium for bone and hard tissue in histology. Contains formic acid.

### Other preparations and reagents that can be used in this method, but are not a part of the kit:

- Fixatives such as BioGnost's neutral buffered formaldehyde solutions: Formaldehyde NB 4%, Formaldehyde NB 10%
- Dehydrating/rehydrating agent, such as BioGnost's alcohol solutions: Histanol 70, Histanol 80, Histanol 95 and Histanol 100
- Clearing agents, such as BioClear xylene or a substitute, for instance BioNene on the limonene basis or BioClear New agent on the aliphatic hydrocarbons basis.
- Glass slides for usage in histopathology and cytology, such as VitroGnost SUPER GRADE or VitroGnost COLOR, or adhesive glass slides, such as VitroGnost PLUS ULTRA, VitroGnost SIL or VitroGnost PLL
- Covering agents for microscopic sections and mounting cover glass, such as BioGnost's BioMount, BioMount High, BioMount M, BioMount New, BioMount DPX, BioMount DPX High, BioMount DPX Low, BioMount C, BioMount Aqua, Canada Balsam or MountQuick Tube medium
- VitroGnost cover glass, dimensions range from 18x18mm to 24x60mm
- BioGnost's staining reagents for use in histology

### Preparing the sample for decalcification

- It is **necessary** that the tissue sample first be fixated
- Immerse the tissue sample into OsteoFast 2 and decalcify it completely

### Decalcification

The length of time needed for decalcification and amount of used OsteoFast 2 depends on the size, type and density of the treated sample.

### The end of decalcification process

The end of the process is determined by using the needle to puncture the part that is not important for further diagnostic procedure.

### Incomplete decalcification

Incomplete decalcification of the embedded sample can be supplemented by immersing the surface of the section into the container filled with OsteoFast 2. Rinse with tap water afterward.

### Result

Decalcified tissue is cartilaginous, similar to rubber. Further treatment is conducted with further histological procedures.

### Usability

30 ml of OsteoFast 2 (enough to cover the entire section) is sufficient for 2 uses. The solution must be clear and uncontaminated.

### Preparing the sample and diagnostics

Use only appropriate instruments for collecting and preparing the samples. Process the samples with modern technology and mark them clearly. Follow the manufacturer's instructions for handling. In order to avoid mistakes, the staining procedure and diagnostics should only be conducted by authorized and qualified personnel. Use only microscope according to standards of the medical diagnostic laboratory.

### Safety at work and environmental protection

Handle the product in accordance with safety at work and environmental protection guidelines. Used solutions and out of date solutions should be disposed of as special waste in accordance with national guidelines. Chemicals used in this procedure could pose danger to human health. Tested tissue specimens are potentially infectious. Necessary safety measures for protecting human health should be taken in accordance with good laboratory practice. Act in accordance with signs and warnings notices printed on the product's label, as well as in BioGnost's material safety data sheet.

### Storing, stability and expiry date

Keep OsteoFast 2 in a tightly sealed original packaging at temperature between 15 to 25 °C. Do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

### References

1. Carson, F. L., Hladik, C. (2009): Histotechnology: A Self-Instructional Text, 3<sup>rd</sup> ed., Chicago: ASCP Press.
2. Kiernan, J.A. (2008): Histological and histochemical methods: Theory and Practice, 4<sup>th</sup> ed., Bloxham, Scion Publishing Ltd.
3. Callis, G., Sterchi, D. (1998): Decalcification of bone: literature review and practical study of various decalcifying agents, methods and their effects on bone histology. J. Histotechnol. 21:49-58.

OF2-OT-X, V6-EN4, 26 November 2015, IŠP/VR

Refer to the supplied documentation	Storage temperature range	Number of tests in package	Product code	European Conformity
Refer to supplied instructions	Keep away from heat and sunlight	Valid until	Lot number	Manufacturer
For in vitro diagnostic use only	Keep in dry place	Caution - fragile		

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