

BOUIN'S SOLUTION

IVD In vitro diagnostic medical device



Aqueous solution of picric acid, formaldehyde and acetic acid for tissue fixation

Synonym: Bouin's fixative

INSTRUCTIONS FOR USE

REF Product code: BOU-OT-100 (100 ml) BOU-OT-1L (1000 ml) BOU-OT-5L (5000 mL) BOU-OT-10L (10000 ml)

Introduction:

Impeccable sample fixation is a prerequisite for a correct histological diagnosis. Tissue samples must be immersed in an optimally chosen fixative immediately after sampling, because a timely fixation will prevent autolysis, putrefaction and other unwanted cellular alterations. The fixative alters the tissue by stabilizing proteins and making them resistant to further alterations. It also has to alter soluble cell components into insoluble cells in order for those components to be preserved in further processing. That alteration is called denaturation and it can be conducted chemically (fixative solutions) or physically (heat, drying). If fixated properly, the tissue sample can withstand additional histological tissue processing and staining. BioGnost's Bouin's solution is an excellent choice for tissue samples to be stained using trichrome methods and for preservation of soft and delicate structures. It is especially useful as a fixative for tissues with chromosomes in stages of mitosis and meiosis being observed because it preserves nuclei and chromosomes exceptionally well.

Product description:

- **BOUIN'S SOLUTION** - Fixative for use in histopathology.

Product use

- The sample should be well fixated in Bouin's solution.
Note: Additional dilution or adding additional media to the solution is not necessary.
- Treat small tissue samples (for instance, gastrointestinal tract tissue samples) for 3 hours before further processing. Larger tissue samples (lymph nodes, spleen, breast or colon) should be treated for 10-12 hours, although 4-6 hours of fixation will suffice.
Note: Excessive fixation can have adverse effect, so tissues should not be immersed in the fixative for longer than 24 hours.

Result

Bouin's solution is a compound fixative; each compound has a specific characteristic. Acetic acid causes swelling that is reversed by shrinking caused by picric acid. Hardening effect of formalin is alleviated by picric acid's mild fixative effect. The formalin-induced basophilic character of cytoplasm is neutralized with picric acid. In turn, that results in exceptionally clear staining of nucleus and cytoplasm using the HE staining methods.

Note

Time period of fixation is not standardized and it depends on standard operating procedures of individual laboratories and the experience of the personnel conducting the staining procedure. The fixation intensity depends on the amount of time the sample has been immersed in the fixative. Depending on personal requests and standard laboratory operating procedures, sample processing can be carried out according to other protocols.

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 use. 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. In order to avoid an erroneous result, positive and negative controls are advised before application.

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 a 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 warning notices printed on the product's label, as well as in BioGnost's Material Safety Data Sheet (available on demand).

Storing, stability and expiry date

Keep Bouin's solution in a tightly sealed original packaging at temperature of +15 to +25°C. Do not keep in cold places, do not freeze and avoid exposing to direct sunlight. Production date and expiry date are printed on the product's label.

References

1. Carson, F. L., Hladik, C. (2009): *Histotechnology: A Self-Instructional Text*, 3rd ed., Chicago: ASCP Press
2. Sheehan, D.C. et Hrapchak, B.B. (1980): *Theory and Practice of Histotechnology*, 2nd ed., St. Louise: CV Mosby Co.

BOU-OT-X, V7-EN7, 27.05.2019., IŠP/VR

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

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