

POTASSIUM HYDROXIDE, SOLUTION

IVD *In vitro* diagnostic medical device

CE

Potassium hydroxide of optimal concentration for use with Congo Red Highman kit

INSTRUCTIONS FOR USE

REF Catalogue number: KHO-OT-100 (100 mL)

Introduction

Potassium hydroxide solution is a component of Congo Red Highman kit used for staining amyloids (amorphous precipitates). Amyloid deposits are stained characteristically red, but under polarized light they display double refraction and provide green coloration.

Product description

- **POTASSIUM HYDROXIDE, SOLUTION** – Potassium hydroxide aqueous solution.

Other sections and reagents that may be used in staining:

- 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, such as BioClear New agent on the aliphatic hydrocarbons basis
- Infiltration and fitting agent, such as BioGnost's granulated paraffin BioWax Plus, BioWax 56/68, BioWax Blue, BioWax Micro.
- Covering agents for microscopic sections and mounting cover glass, such as BioGnost's BioMount, BioMount High, BioMount M, BioMount New, BioMount New Low, BioMount DPX, BioMount DPX High, BioMount DPX Low, BioMount DPX Low Eco, BioMount C, BioMount Aqua, Canada Balsam
- High-quality glass slides for use in histopathology and cytology, such as VitroGnost SUPER GRADE, VitroGnost COLOR or one of more than 30 models of BioGnost's VitroGnost glass slides
- BioGnost's immersion media, such as Immersion oil, Immersion oil, types A, C, FF, 37, or Immersion oil Tropical Grade
- Other components from BioGnost's Congo Red Highman kit: Congo Red reagent (product code CR-OT-100, CR-OT-500, CR-OT-1L), Hematoxylin G2 (product code HEMG2-OT-100, HEMG2-OT-110, HEMG2-OT-500, HEMG2-OT-1L, HEMG2-OT-2,5L)

Preparation of Potassium hydroxide, solution as a component of Congo Red Highman kit

Preparing the histological sections for staining

- Fix the tissue sample tightly (4% NB Formaldehyde, 10% NB Formaldehyde), rinse with water and dehydrate through series of ascending alcohol solutions (Histanol 70, Histanol 80, Histanol 95 and Histanol 100).
- Clear the sample with intermedium; in xylene (BioClear) or in a xylene substitute (BioClear New).
- Infiltrate and fit the sample in paraffin (BioWax 52/54, BioWax Plus 56/58, BioWax 56/58, BioWax Blue, BioWax Micro).
- Cut the paraffin block to 4-6 μ m slices and place them on a VitroGnost glass slide.

Sample staining procedure

1.	Deparaffinize the section in xylene (BioClear) or in a xylene substitute (BioClear New)	3 exchanges, 2 min each
2.	Rehydrate using 100% alcohol (Histanol 100)	2 exchanges, 5 and 3 min
3.	Rehydrate using 95% alcohol (Histanol 95)	2 min
4.	Rehydrate in distilled (demi) water	2 min
5.	Immerse in Congo Red reagent	5 min
6.	Remove the section from Congo Red reagent and decant without rinsing	
7.	Immerse into Potassium hydroxide, solution	15 seconds
8.	Rinse the section in tap water	5 dips
9.	Immerse in Hematoxylin G2	3 min
10.	Rinse under tap water	3 min
11.	Dehydrate using 70% alcohol (Histanol 70)	5 dips
12.	Dehydrate using 95% alcohol (Histanol 95)	5 dips
13.	Dehydrate using 100% alcohol (Histanol 100)	2 min
14.	Clear the section in xylene (BioClear) or in a xylene substitute (BioClear New)	2 exchanges, 2 min each

Immediately after clearing apply an appropriate BioMount medium for covering/mounting on the section. If BioClear xylene was used, use one of BioGnost's mounting xylene-based media (BioMount, BioMount High, BioMount M, BioMount DPX, BioMount C, or universal BioMount New). If BioClear New xylene substitute was used, the appropriate covering agent is BioMount New. Cover the section with a VitroGnost cover glass.

Result

Amyloid deposits - pink to red; green under polarized light
Nuclei - blue

Note

By using polarized light microscope amyloid clusters demonstrate double refraction of light (green).

Staining procedures are not standardized and they depend on standard operating procedures of individual laboratories and the experience of the personnel conducting the staining procedure. Intensity of staining depends on the period of immersion in the dye. Depending on personal requests and standard laboratory operating procedures, sample processing and staining 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 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 Potassium hydroxide, solution in a tightly closed original package at temperature between 15°C and 25°C. Keep in dry places, do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

References

1. Bancroft, J.D., Gamble, M. (2002), Theory and practice of Histological Techniques, Churchill Livingstone, New York.
2. Highman, B., Improved methodes for demonstrating amyloid in paraffin sections, Archives of Pathology, V 41, p. 559

KHO-X, V2, 14 February 2017, AK/VR

	Refer to the supplied documentation		Storage temperature range		Number of tests in package
	Refer to supplied instructions		Keep away from heat and sunlight		Valid until
	For <i>in vitro</i> diagnostic use only		Keep in dry place		Caution - fragile

	Product code		European Conformity
	Lot number		Manufacturer

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