

Workflow of the microscope analysis in anatomic pathology/histopathology

The clinical workflow is usually composed of several steps or stages that allow biological samples to be ready for the microscope analysis.



Fixing	Drying and clearing	Inclusion	Staining	Mounting	Other applications
Histofix®, Formaldehyde, embalming mixture, Bouin Liquor, etc.	Ethanol, denatured Ethanol, Xylene, Xylene substitutes, etc.	Paraffin without DMSO, Paraffin with DMSO	Eosins, Hematoxylin, Lugol's liquors, Papanicolaou's, Giemsa kits, etc.	Immersion oils, Canada balsam, Eukitt®, DPX, Histofluid	Fehling's liquor, HCl vials for urine analysis

Fixing	Product code	Product name	CAS number	CE mark
	251803	Alcohol-Acetone 7:3 for clinical diagnosis	—	✓
	254101	Fixing for fast staining (Panoptic No. 1) for clinical diagnosis	—	—
	253572	Formaldehyde 30-36% w/v concentrated buffered to pH 7 stabilized with methanol for clinical diagnosis	50-00-0	✓
	143091	Formaldehyde solution 10% neutralized, stabilized with methanol pure	50-00-0	—
	252931	Formaldehyde 3.7-4.0% w/v buffered to pH 7 and stabilized with methanol for clinical diagnosis	50-00-0	✓
	256239	Histofix® decalcifier 1 for clinical diagnosis	—	—
	256238	Histofix® decalcifier 2 for clinical diagnosis	—	—
	256237	Histofix® decalcifier 3 for clinical diagnosis	—	—
	256462	Histofix® preservative ready to use for clinical diagnosis	50-00-0	✓
257462	Histofix® preservative ready to use (pink) for clinical diagnosis	—	✓	

Drying and clearing	Product code	Product name	CAS number	CE mark
	253139	Citrosol (substitute of xylene) for clinical diagnosis	5989-27-5	✓
	251086	Ethanol absolute for clinical diagnosis (not available in Germany)	64-17-5	✓
	147194	Ethanol 99.8% denatured with IPA, MEK and Bitrex pure (not available in Spain)	64-17-5	—
	251085	Ethanol 96% v/v for clinical diagnosis (not available in Germany)	64-17-5	✓
	147195	Ethanol 96% denatured with IPA, MEK and Bitrex pure (not available in Spain)	64-17-5	—
	147196	Ethanol 70% denatured with IPA, MEK and Bitrex pure (not available in Spain)	64-17-5	—
	255069	Isoparaffin H (substitute of xylene) for clinical diagnosis	90622-58-5	✓
	256876	Paraffin cleaner for clinical diagnosis	—	✓
	251769	Xylene, mixture of isomers for clinical diagnosis	1330-20-7	✓
211769	Xylene, mixture of isomers technical grade	1330-20-7	—	

Inclusion	Product code	Product name	CAS number	CE mark
	256993	Paraffin M.P. 55-58°C plasticized + DMSO pellets for clinical diagnosis	8002-74-2	✓
253211	Paraffin M.P. 56-58°C pellets for clinical diagnosis	8002-74-2	✓	

Staining	Product code	Product name	CAS number	CE mark
	251338	Azur-Eosin-Methylene Blue solution according to Giemsa (slow) for clinical diagnosis	—	✓
	251301	Eosin yellowish hydroalcoholic solution 1% for clinical diagnosis	—	✓
	256649	Gram-Hucker's Staining kit (droppers) for clinical diagnosis	—	✓
	253949	Harris Hematoxylin solution for clinical diagnosis	—	✓
	256991	Harris Hematoxylin modified solution for clinical diagnosis	—	✓
	251774	Lugol's liquor with 0.4% of iodine (diluted) for clinical diagnosis	—	✓
	256692	Masson's Trichrome kit for clinical diagnosis	—	✓
	254766	Mayer's Hematoxylin solution for clinical diagnosis	—	✓
	253594	Papanicolaou's solution EA 50 for clinical diagnosis	—	✓
253892	Papanicolaou's solution OG 6 for clinical diagnosis	—	✓	

Mounting	Product code	Product name	CAS number	CE mark
	251179	Canada balsam for clinical diagnosis	8007-47-4	✓
	255254	DPX, mounting medium fast (toluene base) for clinical diagnosis	—	—
	253681	Eukitt® mounting medium for clinical diagnosis	—	—
	251002	Immersion oil for clinical diagnosis	8001-79-4	✓
255811	Mounting medium for substitutes of xylene for clinical diagnosis	—	—	

Other	Product code	Product name	CAS number	CE mark
	251563	Fehling's A reagent for clinical diagnosis	—	✓
251564	Fehling's B reagent for clinical diagnosis	—	✓	

The whole offering is shown at itwreagents.com

About the workflow

Fixing: fixation interrupts degradation processes after cell death, trying to preserve tissue / cell architecture and composition as closely as was possible in the living organism.

- It is the most essential stage
- Fixation ≠ Conservation
- There is no universal method of fixation

Drying and clearing: drying is the complete removal of water from the specimen or tissue sample so that it can be properly embedded in the inclusion media other than water soluble. Fixed and washed pieces are taken into 96% alcohol and then to absolute alcohol for a variable time, usually one and a half hour in each bath. The **clearing** process is the replacement of the dehydrating agent with a substance miscible with the embedding medium to be used.

Inclusion: inclusion or embedding consists in replacing the water of the tissue by a liquid medium capable of solidifying under the appropriate temperature conditions, in order to provide the sample with adequate consistency and homogeneity to obtain very thin translucent sections by means of an instrument called a microtome.

Staining: generally, all tissues of animal origin are colorless unless they contain some type of pigment, in which case they adopt the color provided by the latter (pigment).

Dyes are substances that in contact with a suitable support, join it in an enduring manner transmitting its color to it.

Mounting: mounting media interposes between the slide and the coverslip to avoid the contact of the preparation with the environmental air to preserve the sample.

Other applications: products with different applications in clinical diagnosis not linked to microscopy, as sugar determination in blood, urine analysis, blood density determination, etc.



How to order

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