

Instructions for use of dewaxing solution

D292661

[Product Name]

Generic name: dewaxing liquid

English name: DewaxingAgent

[Packaging specifications]

500 mL/bottle, 2 L/drum, 5 L/drum

[Intended use]

Pretreatment of 1,000 pairs of samples before staining to remove paraffin from paraffin-embedded tissue samples

[Inspection principle]

This product is used for the dewaxing of pathological samples. The mechanism is that the dewaxing solution has a certain solubility in paraffin, and during the soaking process, the dewaxing solution gradually replaces the paraffin in the tissue cells, so that the tissue sections can be further hydrated and stained. For transparent pathological samples, the mechanism is that the water in the tissue cells is replaced by the dewaxing solution, and its refractive index is close to that of the tissue protein. The tissue block becomes transparent. After staining, the pathological sections or cell smears are completely dehydrated, immersed in this deparaffinizing solution, and the deparaffinizing solution should completely soak through, leaving the tissue sections or cell smears clear and translucent.

[Main components]

Mainly composed of saturated firing

[Storage conditions and expiration date]

After opening the small package, store at room temperature, and the expiration date is 3 months.

The packaged dewaxing solution should be stored in a ventilated warehouse at 0~30℃, away from heat sources. The expiration date is 36 months under the conditions of transportation and storage.

[Applicable instrument]

Suitable for hand-made or automatic spin driers and automatic dyeing machines

[Sample request]

Tissue block, tissue section or cell smear

[Testing method]

Soak the tissue block or tissue section or cell smear in the dewaxing solution. For the tissue section, dewax three times, each time soaking for 15 minutes; for the tissue section, clear three times, each time soaking for 3 minutes; for the cell smear, clear three times, each time for 1 minute. The order and time for clearing tissue blocks of different thicknesses is as follows (Table 1)

Table 1 Transparency times for tissue blocks of different thicknesses

Processing step	Transparency time for tissue blocks of different thicknesses(min)		
	<2mm	2~4mm	4~5mm
Deflux I	15~30	30	60
Deflux II	15~30	30	60
Deflux III	15~30	30	60

[Reference value]

This product is a transparent dewaxing reagent for tissue sections or cell smears. After complete deparaffinization, the slides are read and judged by a professional pathologist. There is no individual positive judgment value or reference interval.

[Interpretation of test results]

The operator must have received professional training in relevant pathological techniques in order to use it accurately.

The following factors may cause errors if not strictly controlled. The pathologist will determine whether to perform a repeat test based on the reading of the slides:

1. The test was not performed in the environment or strictly according to the instructions in the manual.
2. Dehydration with absolute ethanol is particularly important. If dehydration is not complete, it will lead to transparency or incomplete dewaxing, which will make diagnosis impossible.
3. Due to the decrease in concentration of the dewaxing liquid after a period of use, the dewaxing liquid will become turbid due to the presence of water and paraffin, resulting in a decrease in performance. It should be replaced in time to ensure transparent dewaxing.

[Limitations of the test method]

This product is used to pretreat samples before staining to remove paraffin from paraffin-embedded tissue samples. The procedure is slightly different from that of traditional toxic and harmful xylene, and requires careful screening.

[Product performance indicators]

1 Appearance and properties

- 1.1. The text on the label of the smallest package should be clear and accurate, the seal should be tight, and there should be no seepage.
- 1.2 The dewaxing solution is a colorless, transparent, clear liquid without precipitation or flocs.

2. Specifications and filling quantity

The nominal specifications and filling quantity of the dewaxing solution are 500 mL, 2 L or 5 L, and the filling quantity tolerance should not exceed $\pm 1\%$ of the nominal filling quantity.

3 Compatibility

- 3.1 In a 200 ml beaker, add 50 ml of dewaxing solution and 50 ml of absolute ethanol and mix. There should be no separation.
- 3.2 In a 200 ml beaker, add 50 ml of dewaxing solution and 0.5 g of paraffin and mix. There should be no separation or precipitation.

4 Performance

After tissue sections or cells are transparent, they should appear translucent under an optical microscope, and there should be no blurry or opaque areas.

5 Stability

The dewaxing solution is stored at room temperature of 0~30 °C for 36 months. Take the dewaxing solution within three months of the expiration date for performance testing, and the test results should meet the requirements of 1, 3, and 4.

[Precautions]

1. The thickness of tissue sections and cell smears should be moderate.
2. The tissue or cells taken should be fixed immediately to preserve the morphological structure and antigenicity of the tissue cells as much as possible.
3. A constant temperature can be applied in an automatic dehydrator or automatic staining machine to complete the transparent dewaxing process within a limited time.
4. This product is only suitable for in vitro diagnosis and should be used before the expiration date.
5. Sufficient amount: the dewaxing solution should at least cover the entire tissue or section, slide, etc., and should not be too little to avoid incomplete transparent dewaxing.
6. After a period of use, the first tank of dewaxing solution with more dissolved wax (ethanol, water) should be discarded, and the subsequent dewaxing solutions should be used in sequence, with the last tank replaced with fresh dewaxing solution.

[References]

1. Wang Boyun, Li Yusong, Huang Gaosheng, Zhang Yuanqiang. Pathology Technology [M], Beijing: People's Medical Publishing House, 2000: 61