

Operating mode

Réf : MO-

PHIVLG_technovit_embe

dding_01 Version 01

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Technovit resin embedding

1. Object

Tissue embedding in resin for thin section

2. Health and safety

Wear lab coat and gloves and work under the fume hood

3. Reagents (chemicals and biological)

(from HERAEUS KULZER GMBH)

GHS07	Technovit 7100 liquid (2-hydroxyethyl methacrylate, cas : 868-77-9 / methyltrioctylammonium chloride, cas : 5137-55-3)
GHS02 GHS07 GHS08 GHS09	Technovit hardener 1 (dibenzoyl peroxide cas : 94-36-0 / dicyclohexyl phthalate cas : 84-61-7)
GHS07	Technovit hardener 2 (5-Butylbarbituric acid, cas: 1953-33-9)
	Ethanol absolute

4. Operating Mode

. Dehydration

Ethanol 50 %	> 30 min	
Ethanol 70 %	> 30 min	
Ethanol 70 %	> 1 h	at this step you can store the sample at 4°C
Ethanol 95 %	> 30 min	
Ethanol 95 %	> 1 h	
Ethanol 100 %	> 30 min	
Ethanol 100 %	> 2 h	at this step you can store the sample at $4\ensuremath{^\circ \text{C}}$

For sample with a cuticule

Ethanol 100% / Butanol 100 % > 1h

> 2h at this step you can store the sample at 4°C **Butanol 100 %**

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2. Pre-infiltration

Solution 1:

Technovit 7100 liquid (Kulzer) 100 ml Hardener 1 1 g Mix gently, avoid bubbles, store at 4°C in dark

Incubate the dehydrated sample in Ethanol (or butanol) 100% / solution 1 (V/V) 2h Mix gently

Transfer the sample to solution 1, store at 4°C 2 days

If the sample are well infiltrated, it is located at the bottom of the tube

3. Infiltration

The polymerisation is better without oxygen, fill well the tube and close it

Solution 2:

Solution 1 (pre-infiltration) 15 ml Hardener 2 1 ml

To make less than 15 ml, you should increase the volume of hardener 2 (by a factor x1.5)

Mix gently for 1 min without doing bubbles. The solution sart to polymerise after 5 min.

Transfer the sample in a mold containing solution 2. Incubate 1 h under a fume cupboard at room temperature until the resin is solidified. Then store the mold at 37°C

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