

USE 33

Ultrasonic Decalcifying Automate



- *Worldwide only ultrasonic instrument for decalcifying*
- *Up to 75% time saving*
- *Ideal preservation of the morphology and antigenity*

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Ultrasonic Decalcifying Automate

Take advantage of the fast, efficient and competitive **USE 33** decalcifying automate with its unique ultrasonic technology.

The unique technology of the ultrasonic decalcifying automate **USE 33** offers the rapid destruction of crystalline structures like calcium phosphate, magnesium phosphate and calcium carbonate.

In combination with adequate solutions it provides maximum cell tissue preservation.

All diffusion processes are significantly accelerated by the **USE 33**. The advantage: decalcification, fixation and intermediate rinsing solutions work much faster.

Benchmark: save up to 75% decalcification time for bone marrow biopsies and cartilage of nose and ear and up to 40 to 60% for corticalis tissue.

The additional feature of cooling the tissue samples at a temperature of +17° C avoids the warming up of the specimens resulting from the chemical reaction with the decalcifying solution. This guarantees 100% preservation of the morphological structures and the antigenicity of the samples.

There are no artefacts from shrinking or swelling and all consecutive histological and immuno-histochemical methods can be applied to these samples.

Medite® provides, as accessories for the **USE 33**, multiple sample container inserts. Depending on the sample size the user can choose from inserts including 4, 9 or 49 sample containers with different volumes (see right side image and more details on last page). In every batch up to 49 sample containers, able to carry multiple samples, can be processed simultaneously.

We also recommend our chemicals for the perfect use of our **USE 33**. Carefully matched components in these solutions enable the best possible decalcifying results (see details on last page).

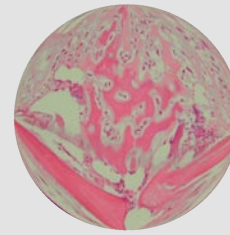


Fig. 1: osteosarkoma

staining:	HE
decalcifying method:	USE 33
decalcifying solution:	z.B. USEDECALC®
decalcifying time:	max. 24 to 48 hrs.
sample type:	bone marrow biopsy, guided scan

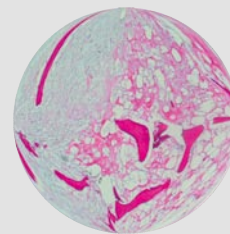


Fig. 2: bone infarct

staining:	HE
decalcifying method:	USE 33
decalcifying solution:	z.B. USEDECALC®
decalcifying time:	max. 48 to 72 hrs.
sample type:	hip bone, femur head

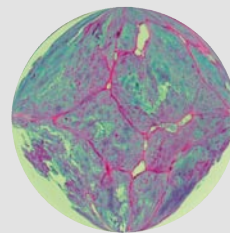


Fig. 3: chondroma

staining:	HE
decalcifying method:	USE 33
decalcifying solution:	z.B. USEDECALC®
decalcifying time:	max. 12 hrs.
sample type:	humeral (cartilaginous tissue)



Example 1: Tissue decalcifying procedure

Aim: Protective sample preparation for immuno-histochemical analysis

Sample: Bone marrow biopsy

Process	Conventional method	Time	USE 33 method	Temp.	Time	Advantage
Fixation	USEFIX	12 - 24 hrs.	USEFIX	+17° C	8 - 12 hrs.	ca. 45-65%
Rinsing	running water	60 -120 min.	USE 33 with several fresh water changes	+17° C	15 - 60 min.	
Decalcifying	EDTA	> 24 - 48 hrs.	USEDECALC	+17° C	8 - 17 hrs.	ca. 40-70%
Rinsing	running water	60 -120 min.	USE 33 with several fresh water changes	+17° C	30 - 60 min.	

You may use the **Medite®** Tissue Processing Center **TPC 15** to process and dehydrate the sample. To avoid artefacts a renewed fixation with formaldehyde is not recommended.

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Technical Data:

Process timer:	adjustable from 1 min. to 100 h
Week program timer:	by the programmable timer, for every weekday three automatic start and end times can be chosen, so that three individual programmes per day can be stored
Output:	200 W ultrasonic power 200 W refrigerating power
Bath volume:	13.5 l carrier fluid
Total dimensions (W/D/H):	450 x 600 x 350 mm
Temperature control:	electronic controller with digital display
Temperature range:	+16° C to + 28° C
Weight:	28 kg
Power supply:	115-230 V / 50/60 Hz / 400 VA

Accessories: sample container inserts*

Insert	No. of Sample Containers	Sample Container Size	Volume Container/Sample
No. 1	4	Ø = 93 mm height = 110 mm	container volume: 800 ml recommended sample size: up to 250 cc
No. 2	9	Ø = 51 mm height = 85 mm	container volume: 150 ml recommended sample size: up to 30 cc
No. 3	49	Ø = 25 mm height = 40 mm	container volume: 20 ml recommended sample size: up to 5 cc

*Accessories to be ordered separately!

Chemicals recommended

Decalcifying solution:

USEDECALC®: plastic tank of 5 L

USERAPID®: plastic tank of 5 L

Fixing solution:

USEFIX®: plastic tank of 5 L



07 - 2008 / Subject to change without prior notice.

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