

# This is a frozen section of the human breast

Standardized and documented freezing and staining of fatty tissues in 13 minutes or less

## **NEED GOOD RESULTS? START WITH A GOOD PREPARATION**

In general, breast and fatty tissues are some of the most difficult tissues to process as frozen sections. With the PrestoCHILL, Milestone has developed a breakthrough freezing technology, which combined with the patented "face down embedding" technique (in which no liquid nitrogen or isopentane are required) and with dedicated protocols for automatic processing and staining of frozen sections, offers an innovative and rapid solution to this challenge.



## THE MILESTONE'S BREAKTHROUGH METHOD

#### > PRIMARY FREEZING



1 Place the specimen in a PrestoCHILL mold and fill it with the MCC medium.



2 Freeze the specimen at -40°C for 4 minutes.



A perfectly planar surface is obtained through the "face down" embedding technique.

## **TRIMMING**



4 Rapidly transfer the specimen to the cryostat kept at a temperature of -20 C or below. Rapidly trim the specimen.

#### **SECONDARY FREEZING**



5 Tranfer the trimmed block back to the PrestoCHILL.

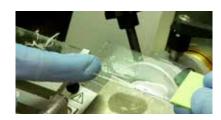


6 Start a second freezing step for 1 minute. Transfer the specimen to the cryostat.

#### **CUTTING**



7 Immediately start cutting with a rapid movement of the wheel.



8 Place the tissue section on a slide.



Store the slides in the FineFIX\*\* while waiting to start the staining procedure.

## PRESTO. THE FINAL STEP TOWARDS HIGH-QUALITY FROZEN SECTIONS

The high quality offered by Milestone's innovative method can only be obtained by freezing the specimens with PrestoCHILL and by processing the slides with FineFIX\* before staining. The process consists in immersing the slides in FineFIX at a temperature of 40°C for 60 seconds, in order to simultaneously carry out the specimen's fixation, dehydration and fat extraction. After this step, the slides are stained, either automatically or manually, according to the user's protocol.







**AUTOMATIC**PRESTO processor/stainer



PRESTO is an innovative benchtop processor/ stainer for high-quality frozen sections. It features a standardized approach by first processing the slide with FineFIX, followed by fully automated staining protocols for consistent high-quality results. The operator can perform other tasks, such as freezing other specimens or trimming/cutting. The results are operator independent. Six stained slides are obtained in 150-240 seconds respectively for high-quality or ultra-quality results.

Total time: 11 minutes for high-quality results

Total time: 13 minutes for ultra-quality results

STEP	TIME
Primary Freezing	4 minutes
Trimming	2 minutes
Secondary Freezing	1 minute
Cutting	2 minutes
Staining	2/4 minutes

MANUAL
FineFIX Module processor



The FineFIX Module consists of a heated metal container in which the samples are immersed in FineFIX at 40 C for 60 seconds, in order to simultaneously carry out the specimen's fixation, dehydration and fat extraction. After this pre-step, the specimens are stained according to the user's standard protocols. The FineFIX Module will enhance the results of manual staining systems. The operator cannot perform other tasks and the results are operator dependent.

#### Total time: approximately 13 minutes

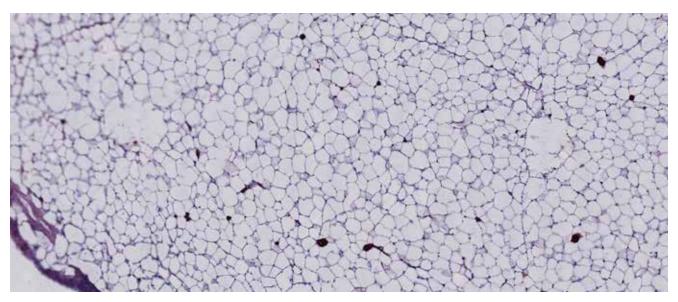
STEP	TIME
Primary Freezing	4 minutes
Trimming	2 minutes
Secondary Freezing	1 minute
Cutting	2 minutes
FineFIX processing	1 minute
Manual staining	3 minutes approx.

<sup>\*</sup>Patent n. US 6,536,219 B2

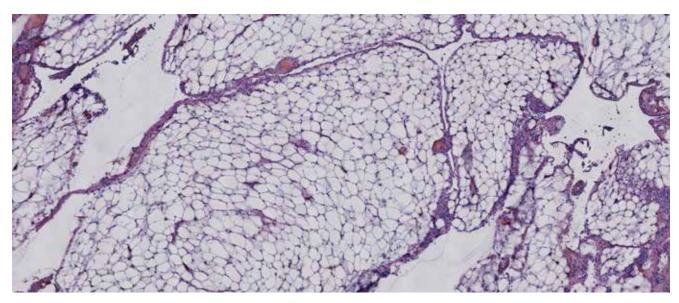
<sup>\*\*</sup>FineFIX patent n. EP 1 455 174 B1

## STANDARDIZED OPERATIONS MAKE EVERYONE AN EXPERT

Ultra-quality frozen sections, even of the most difficult tissues, such as permanent tissue sections, are obtained in 13 minutes or less.



**ABDOMINAL FAT, 40X** 



**OMENTUM, 40X**