

Product Information

MICROWAVE TISSUE FIXATION PROTOCOL

H2100 MICROWAVE PROCESSOR

Formalin-Free Fixative Procedure

REAGENTS & CONSUMABLES REQUIRED

Formalin-Free Fixative	
Catalog No.	Quantity
A5472-1	1 Gallon
A5472-5	5 Gallon
500 mL Polypropylene Jar	
Catalog No.	Quantity
Z38,025-3	6 pack
Microwave Cassette Holder	
Catalog No.	Quantity
Catalog No. Z71,104-7	1 ea

SPECIMEN PREPARATION

Trim specimen to 1-3 mm thickness and place in standard **plastic** histological cassette. Tissue borders should not exceed the dimensions of the cassette.

PROCEDURAL NOTES

- Before beginning the tissue fixation procedure, warm up the magnetron by placing approximately 500 mL of tap water in a microwave safe container and irradiating at full power for 1 minute.
- Read and understand the Material Safety Data Sheet flammability and health hazards for Formalin-Free Fixative.
- This protocol was designed for the H2100 Microwave for use with the specified jar and cassette holder. **Use of other equipment may alter results and damage tissue.**
- Up to 6 cassettes can be placed on the bottom level of the microwave cassette holder.
- Between each irradiation step gently agitate the solution by raising and lowering the cassette holder 5-10 times.
- Caution! Fixation solutions are hot. Use thermal mitts or glove liners when handling fixation jar.
- Loosely place lid on top of microwave cassette holder and jar when irradiating. Leave lid ajar when measuring temperature to avoid excessive heat loss.
- Use the provided quality control chart for recording temperature measurements.
- Adjust the microwave time as necessary to be within the Formalin Free Fixative preheat temperature range of 50-60 °C.
- Desired temperature range for the Formalin-Free Fixative steps 4-15 is 40-60 °C. Care should be taken to try to keep the temperature at the optimal target temperature of 50 °C. Adjust microwave power settings as needed. Avoid repeated irradiations above the target temperature.

PROCEDURE

- Place tissue cassette(s) in Formalin-Free Fixative for 1 hour at room temperature.
- Preheat 400 mL of fresh Formalin-Free Fixative for 1 minute at 800 watts. **Measure temperature.**
- Using the Microwave Cassette Holder, place cassette(s) in preheated Formalin-Free Fixative. Agitate solution.
- Microwave for 15 minutes at 50 watts.
- Agitate solution. **Measure temperature.**
- Microwave for 15 minutes at 80 watts.
- Agitate solution. **Measure temperature.**
- Microwave for 15 minutes at 100 watts.
- Agitate solution. **Measure temperature.**
- Microwave for 15 minutes at 50 watts.
- Agitate solution. **Measure temperature.**
- Microwave for 15 minutes at 80 watts.
- Agitate solution. **Measure temperature.**
- Microwave for 15 minutes at 100 watts.
- Agitate solution. **Measure temperature.**
- Rinse cassette(s) in lukewarm water for 5 minutes.
- Move forward to tissue processing procedure.