

SOP60101: Tissue Microarray (TMA) Slide Deparaffinization

Laboratory: Molecular Characterization and Clinical Assay Development Laboratory

Revision Date: 4/1/2026

Page 1 of 4

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Effective Date: 4/1/2026

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TABLE OF CONTENTS

1.0	PURPOSE/SCOPE	3
2.0	SAFETY	3
3.0	EQUIPMENT	3
4.0	TMA SLIDE DEPARAFFINIZATION	4

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Page 2 of 4

VERSION INFORMATION

1. Change History

Revision	Description
4/1/2026	New Document for PDMR Public Website

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Revision Date: 4/1/2026

Page 3 of 4

1.0 PURPOSE/SCOPE

Patient-derived xenograft (PDX) Tumor Microarrays (TMAs) are sectioned at 5 μ m thickness and mounted onto glass slides by Mocha Histology. They are then paraffin-dipped for long term storage and are suitable for standard histopathology processing and evaluation.

2.0 SAFETY

Lab coats, safety glasses, closed-toe shoes, and gloves must be worn when handling hazardous or sensitive equipment, samples, reagents, and materials. These safety measures must also be followed when in proximity to those who are working with these items. All activities involving 95% and 100% Ethanol and Xylene are to be performed in a Chemical Fume Hood (CFH).

3.0 EQUIPMENT

3.1 Materials

3.1.1 95% and 100% Ethanol (ETOH)

3.1.2 Xylene, Reagent Grade

3.1.3 Lidded container

3.1.4 Distilled water

3.2 Equipment

3.2.1 Chemical Fume Hood (CFH)

3.2.2 Tissue Tek Staining Dishes

3.2.3 Tissue Tek Slide Staining Racks

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Laboratory: Molecular Characterization and Clinical Assay Development Laboratory

Revision Date: 4/1/2026

Page 4 of 4

4.0 TMA SLIDE DEPARAFFINIZATION

- 4.1 Place paraffin-dipped slides in a slide rack of the appropriate size to fit in staining dishes (e.g., Tissue-Tek slide rack with Tissue-Tek staining dishes).
- 4.2 Prepare the reagents for the off-line deparaffinization procedure in appropriate staining dishes within a Chemical Fume Hood. Deparaffinize, rehydrate, and rinse slides as follows:
 - 4.2.1 4 x 10-minute Incubations in 200 mL Xylene
 - 4.2.1.1 More slides in the rack may require additional incubations
 - 4.2.1.2 Agitation of slides during each xylene incubation will help to release paraffin from the slides.
 - 4.2.2 4 x 3-minute Incubations in 200 mL 100% Anhydrous Ethanol
 - 4.2.3 3 x 3-minute Incubations in 200 mL 95% Ethanol
 - 4.2.4 3 x 2-minute Incubations in 200 mL Distilled Water
 - 4.2.5 Final Wash in 200 mL appropriate wash buffer for downstream applications (e.g., distilled water, 1X PBS, 1X Leica Bond Wash Buffer).

Slide Racks for Slide Deparaffinization

Number of Containers	Reagent	Time (min:sec)
4	100% Xylene	10:00
4	100% EtOH	3:00
3	95% EtOH	3:00
3	Distilled Water	2:00
1	Appropriate Wash Buffer	Final Wash