

Materials List for:

# Multimodal Optical Microscopy Methods Reveal Polyp Tissue Morphology and Structure in Caribbean Reef Building Corals

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URL: <https://www.jove.com/video/51824>

DOI: [doi:10.3791/51824](https://doi.org/10.3791/51824)

## Materials

Name	Company	Catalog Number	Comments
Coral Tissue Skeleton			2.5 cm Biopsy from natural habitat
Arch Punch Coring Device	C.S. Osborne and Company	No. 149	For Coral biopsy collection
Paraformaldehyde	Electron Microscopy Sciences	RT 15700	16% Pre-diluted
Histoclear/Safeclear II	Electron Microscopy Sciences	RT 64111-04	Non-Toxic alternate to Xylene, Dehydration and Deparaffinization
Xylene and Ethanol	Fisher Scientific		Dehydration
Paraffin Wax	Richard Allen Scientific	Type H REF 8338	Infiltration solution
Vybar	The Candle Maker		Component of Red Wax
Stearin	The Candle Maker		Component of Red Wax
Sudan IV	Fisher Chemical	S667-25	Red Wax-Opaque background
Wheat Germ Agglutinin (WGA)	Life Technologies	W32466	For labeling Coral Mucus
Prolong Gold	Life Technologies	P36095	Anti-fade mounting media
Fluoro Dish	World Precision Instruments	FD-35-100	For two-photon imaging
XY Motor, Driver and Controller	Lin Engineering	211-13-01R0, R325, R256-RO	XY Translational Movement
Hot Plate	Corning	DC-220	Melting all wax
Convection Oven	Yamato	DX-600	Infiltration and Embedding
Tissue Processor	Leica	ASP 300	Dehydration, Infiltration
Microtome	Leica	RM2055	Disposable knives
Stereo Microscope	Carl Zeiss	Stereolumar V 12	1.5x (30 mm WD) Objective
Fluorescence Microscope with ApoTome	Carl Zeiss	Axiovert M 200, ApoTome I System	Imaging thin section of a polyp: Zooxanthellae
Axiocam camera	Carl Zeiss	MRm	Monochrome camera 1388x1040 pixels
Axiovision Software	Carl Zeiss	Version 4.8	Image acquisition program
Two-Photon Laser	Spectraphysics	Maitai eHP, pulsed laser (70 fs)	With DeepSee module
Laser Scanning Microscope	Carl Zeiss	LSM 710 with Spectral Detector	34 channel PMT detection
Zen Software	Carl Zeiss	2010 or above	for two-photon and spectral image acquisition
Imaris Suite Software	Bitplane, Inc.,	Version 7.0 or above	3D Volume, Iso-surface Rendering, Visualization