

Quick Guide:

ME220 Focused-ultrasonicator FFPE and ChIP Applications

This Quick Guide provides protocol guidelines for FFPE DNA extraction with Covaris truXTRAC™ and chromatin shearing with truChIP™ when using a Covaris ME220 Focused-ultrasonicator. This is an internal Covaris document to be used while kit specific protocols are being updated to include the ME220.

Revision History

Part Number	Revision	Date	Description of change
NA	DRAFT	10/26/2016	As released

The following Applications can be performed on the ME220:

- FFPE emulsification for DNA extraction
- ChIP chromatin shearing in the milliTUBE-1 and 8 microTUBE-130 Strip V2
- DNA shearing in the microTUBE-130, microTUBE-15 and microTUBE-50
- *DNA shearing in the microTUBE-500 will soon be available*

Supplemental materials (hyperlinks included)

- [010349 ME220 DNA Shearing Protocols](#)
- [010178 truXTRAC™ FFPE DNA microTUBE Kit – Column Purification \(25\) \(520136\)](#)
- [010339 truXTRAC™ FFPE DNA microTUBE Kit – Bead Purification \(24\) \(520210\)](#)
- [010147 Tissue Chromatin Shearing Kit with SDS Buffer \(520083\)](#)
- [010255 Ultra Low Chromatin Shearing Kit \(520156\)](#)
- [010179 truChIP Chromatin Shearing Reagent Kit \(520154\)](#)


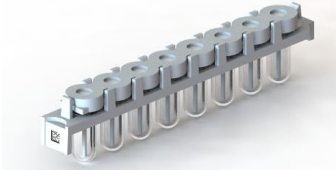
Instrument settings

- Recommended settings are subject to change without notice.
- DNA Shearing vessels have specific racks and waveguides associated with them.
- Water level settings are set by the rack definition and are not controlled by the user. Water level reading will be approximately 1-2mm higher when racks and tubes are submerged in acoustic bath.




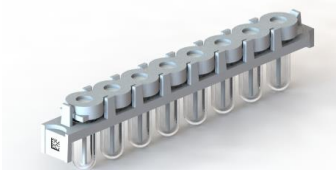
The following FFPE emulsification and truChIP™ Protocols *have not* been validated, please use the following AFA settings as suggested guidelines and adjust to your specific needs. Refer to truXTRAC™ FFPE and truChIP™ for more information.

FFPE Emulsification for DNA Extraction- truXTRAC™ FFPE DNA Kit

Vessel	microTUBE-130 AFA Fiber Pre-Slit Screw-Cap (PN 190351)* 	8 microTUBE-130 AFA Fiber Uncapped Strip V2 (PN 190304)* 
Rack	Rack 4-place microTUBE Screw-Cap PN 500522	Rack 8 microTUBE Strip V2 PN 500518
Waveguide	PN 500534	PN 500526
Sample Input	15 µm scroll	15 µm scroll
Water Level	8	7
Water Temperature	20°C	20°C
Duration (s)	390	390
Peak Power (W)	75	75
Duty Factor (%)	25	25
Cycles per Burst	1000	1000

*FFPE emulsification vessels available in truXTRAC™ FFPE Kits, please note whether or not kits support 8 microTUBE-130 AFA Fiber Strip V2 (PN 190304)

Chromatin Shearing- truChIP™ Tissue Chromatin Shearing Kit

Vessel	milliTUBE-1 AFA Fiber Screw-Cap (PN 520135) 	8 microTUBE-130 AFA Fiber Strip V2 (PN 520217) 
Rack	ME220 Rack - 4 place milliTUBE 1 mL PN 500520	Rack 8 microTUBE Strip V2 PN 500518
Waveguide	PN 500534	PN 500526
Sample Input	1.0 mL, High Cell	130 µL, Low Cell
Water Level	7	9
Water Temperature	20°C	20°C
Duration (s)	Empirical, 2 to 20 min. typical	Empirical, 2 to 12 min. typical
Peak Power (W)	75	75
Duty Factor (%)	25	5
Cycles per Burst	1000	1000

Additional Accessories

	Product Description	Part Number
Preparation Stations	microTUBE Prep Station Snap & Screw Cap	500330
	ME220 Rack Loading Station	500523
Centrifuge and Heat Block microTUBE Screw-Cap Adapter	Fits microTUBE Screw-Caps into bench top microcentrifuges	500406
FFPE Preparation	Cap Press Tool 8 microTUBE Strip V2	500469

Technical Assistance

- By telephone (+1 781 932 3959) during the hours of 9:00am to 5:00pm, Monday through Friday, United States Eastern Standard Time (EST) or Greenwich Mean Time (GMT) minus 05:00 hours
- By e-mail at techsupport@covarisinc.com