microTUBE AFA Fiber Snap-Cap (PN 520045)
microTUBE AFA Fiber Crimp-Cap (PN 520052)

Intended Use

The microTUBE(s) AFA® Fiber Snap-Cap (PN 520045) and Crimp-Cap (PN 520052) are singular vessels designed to hold a 130 µL sample volume that has been optimized for use with AFA-energetics™. Each tube contains an AFA fiber that improves reproducibility, promotes a temperature-controlled process, reduces fragmentation times, and allows small sample volumes to be processed.

Both tubes require an instrument specific Rack or Holder and compatible instruments are listed below:

- microTUBE AFA Fiber Snap-Cap (PN 520045): M220, ME220, S220, E220, E220*evolution*, and LE220
- microTUBE AFA Fiber Crimp-Cap (PN 520052): ME220, S220, E220, L-series

The microTUBEs have an easy-to-pierce, pre-cut slit in the septum of the Cap to minimize transfer time for the sample from the storage container to the shearing vessel. Refer to the Covaris-certified Consumable Guide for further information (covaris.com/wp-content/uploads/M020065.pdf). DNA shearing protocols with the microTUBEs are instrument specific. Do not store sheared samples in the microTUBEs.

The microTUBE(s) is a one-time use Consumable. Recommended instructions are subject to change without notice.

For current protocols, quick guides, technical notes, or application notes: https://www.covaris.com/protocols.
For specific help with applications involving shearing, contact applicationsupport@covaris.com.
Recommended instructions are subject to change without notice.

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References and Supporting Documentation

- [DNA Shearing with M220](#)
- [DNA Shearing with ME220](#)
- [DNA Shearing with S220](#)
- [DNA Shearing with E220and E220*evolution*](#)
- [DNA Shearing with LE220](#)
- [DNA Shearing with LE220-plus, LE220R-plus, LE220Rsc](#)

Operating Limits

Temperature (water bath)	Please refer to protocols in specific instrument Quick Guides.
Recommended Sample Volume	130 ± 5 μL
Storage	Dry, at ambient temperature (18-25˚C), and out of direct sunlight.

⚠️ **CAUTION:** All Covaris microTUBEs must operate within energy constraints. The power maximum levels are guides and should not be exceeded. Operating outside of these limits or limits published in Covaris protocols may compromise the integrity of the microTUBEs.

Relevant Accessories and Plate Definitions

Please refer to the Quick Guide for specific parameters for all applications.

M220

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Holder + Insert	M220 Holder XTU ([PN 500414](#)) + M220 Holder XTU Insert microTUBE 130 μL ([PN 500489](#))

ME220

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Rack	Snap-Cap/Crimp-Cap/8 microTUBE Strip V1 Rack ([PN 500514](#))
Waveguide	ME220 Waveguide 8 Place ([PN 500526](#))
Plate Definition	"8 microTUBE-130 Snap-Cap PN 520045.2" "8 microTUBE-130 Crimp-Cap PN 520052.2"

S220

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Holder	S-Series Holder microTUBE ([PN 500114](#))
Water Level (RUN)	12

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E220

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Rack	Rack 24 Place microTUBE Snap-Cap (PN 500111) Rack 96 Place microTUBE Crimp-Cap (PN 500282)
Plate Definition	"500111 24 microTUBE snap +4mm offset" "E220_500282 Rack 96 Place microTUBE -6mm offset"
Water Level (RUN)	6
Intensifier	Yes

E220*evolution*

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Rack	Rack E220e 8 Place microTUBE Crimp and Snap Cap (PN 500433)
Plate Definition	"500433 E220e 8 microTUBE Crimp and Snap Cap -3.7mm offset"
Water Level (RUN)	6
Intensifier	Yes

LE220

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Rack	Rack 96 Place microTUBE Crimp-Cap (PN 500282)
Plate Definition	"LE220_500282 Rack 96 Place microTUBE -4mm offset"
Water Level (RUN)	6

LE220-plus/LE220R-plus/LE220Rsc (for SonoLab 8 and SonoLab 10)

Peak Incident Power (W) & Duty Factor (%)	Please refer to Instrument Shearing Quick Guide for specific combinations.
Rack	Rack 96 Place microTUBE Crimp-Cap (PN 500282)
Plate Definition	"LE220plus_500282 Rack 96 Place microTUBE -4mm offset" "LE220PRSC_500282 Rack 96 Place microTUBE -4mm offset"
Water Level (RUN)	Automatically Adjusted by the Instrument

> **NOTE:** If the plate definition is not present on the system, contact Covaris Technical Support (Techsupport@covaris.com) with the system serial number.

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Instructions for Use

1. The microTUBE(s) has a pre-cut slit septum for sample loading.

2. Add the sample through the septum, being careful to keep the AFA Fiber in the microTUBE(s).

3. Ensure the cap has not been loosened during sample loading.

4. Load the microTUBE(s) into the appropriate rack or holder and process the sample.

5. Once finished, remove the sample from the microTUBE(s). Do not store the sample in the microTUBE(s).

Ordering Information

Part Name	Part Number	Part Description
microTUBE AFA Fiber Pre-Slit Snap-Cap 6x16mm	520045	130 µL sample volume glass tube with AFA Fiber
microTUBE AFA Fiber Pre-Slit Snap-Cap 6x16mm Case	520077	Case of 250, 130 µL sample volume glass tube with AFA Fiber
microTUBE AFA Fiber Crimp-Cap 6x16mm	520052	130 µL sample volume glass tube with AFA Fiber
microTUBE AFA Fiber Crimp-Cap Case 6x16mm Case	520091	Case of 250, 130 µL sample volume glass tube with AFA Fiber

Support and Technical Assistance

Tech Support: Ongoing assistance with the operation or application of the equipment and/or troubleshooting is provided via:

- **Telephone**:
  - US & APAC: +1 781.932.3959, during the hours of 8:30 a.m. to 5:00 p.m. (EST), Monday through Friday
  - EU: +44 (0)845 872 0100, during the hours of 9:00 a.m. to 5:00 p.m. (GMT), Monday through Friday
- **E-mail:**
  - Service and Instrumentation: techsupport@covaris.com
  - Solutions: applicationsupport@covaris.com
  - US Customer Service: customerservice@covaris.com
  - EU/UK Customer Service: emeacustomerservice@covaris.com
  - APAC Customer Service: APACcustomerservice@covaris.com