



LABSUN SELECTION

High-throughput Focused-ultrasonicator

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FRAG96

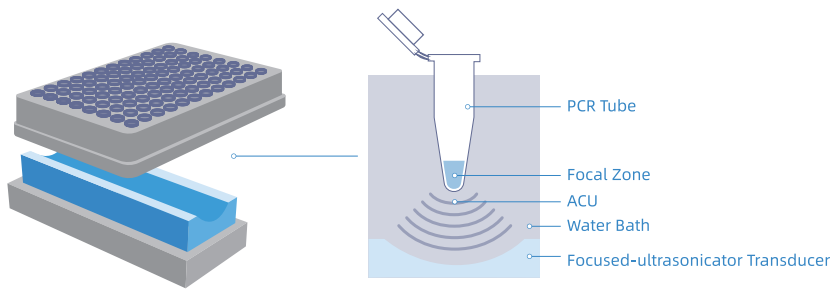
FRAG96 High-throughput Focused-ultrasonicator adopts Adaptive Cylindrical Ultrasonic (ACU) technology to shearing of DNA, RNA, chromatin, and protein. It can achieve appropriate size by different sonication conditions. Based on its excellent performance, it can produce relatively narrow and consistent chromatin shearing proles (200-600bp) compared with enzyme cutting method, which can be a better choice for sample fragmentation treatment.

FRAG96 can exibly process 1 to 96 samples at one time. Different specifications of consumables such as 96-well plates, eight-row tubes, and single tubes can be used to t 1 to 96 samples. Since PCR plates/tubes can be used for processing, the cost of consumables is very low. There is no need to manually change samples to special consumables during use, it can transfer samples from board to board for automation.



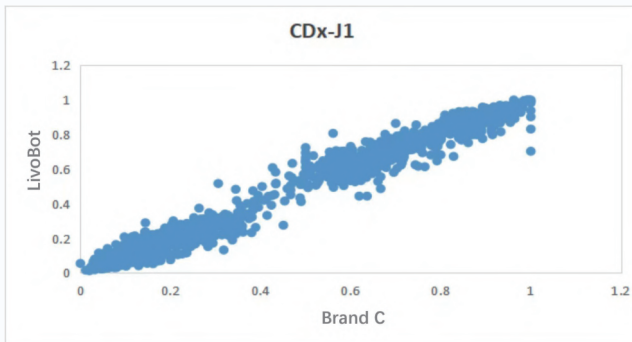
Highlights

- High Throughput: 1~96 samples can be processed at one time.
- Low Noise: No vibration and no noise in operation.
- Multiple settings: 1~12 parameters can be set at the same time. Sample demand maximizes coverage.
- Reduce Manual Work: Nucleic acid and cultured cells can be sheared directly without changing plate.
- Non-contact: Closed vessel; no cross-contamination, aerosols, or clean-up.
- Compatible: No requirement for buying special consumables, common laboratory consumables can be used.
- Consistent: Process 1-96 samples with extremely high reproducibility.
- Fatigue Resistance: Can work continuously for a long time.

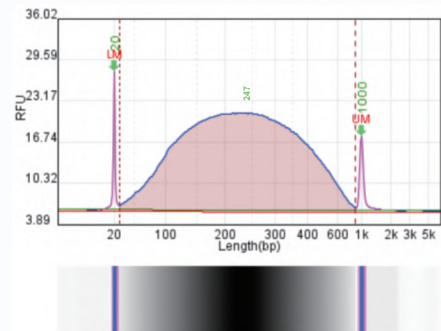


Compatible applications

- Shearing DNA/RNA for NGS.
- Shearing chromatin for ChIP-Seq.
- Process cells or tissue samples for nucleic acid extraction.
- Process cells or tissue samples for protein



Based on the results obtained from pan-cancer dna library preparation and NGS sequencing, the sample fragmentation processing function of the LivoBot Focused-ultrasonicator is fully compatible with the application of Illumina TSO500 panel kit.



The image demonstrates the DNA fragmentation result using commonly used PCR well plate. The fragment sizes are all stable at 200 ~ 300bp.

Technical Specification

Throughput	1 ~ 96
Fragment sizes	100bp ~ 5Kb
Flexible sample processing volume	30~150µl
Technology	ACU (Adaptive Cylindrical Ultrasonic)
Supported consumables	PCR plates, PCR tubes and professional consumables
Automatable	Optional
Man-machine interaction mode	Touch screen

Operating Environment

Dimensions (WxDxH)	560mm×660mm×382mm
Weight	50 kg
Power Requirements	AC220~240V, 1000VA
Operating Environment	Ambient temperature: 20 °C to 30°C (68 °F to 86 °F) Relative humidity: 20% to 80%; 80~106kPa
Intelligent monitoring	Yes

References

- Pujari GP, et al. 2023 A High-Throughput Workow for FFPE Tissue Proteomics.
- Harada S, et al. 2021 Diagnostic utility of one-stop fusion gene panel to detect TFE3/TFEB gene rearrangement and amplification in renal cell carcinomas.
- V Pestinger, et al. - 2020 Use of an integrated pan-cancer oncology enrichment NGS assay to measure tumour mutational burden and detect clinically actionable variants
- Robbe, et al.- 2018 Clinical whole-genome sequencing from routine formalin-xed, paran-embedded specimens: pilot study for the 100,000 Genomes Project



Labsun GmbH

Am Sandfeld 13a
76149 Karlsruhe, Germany

Web: www.lab-sun.de

Email: info@lab-sun.de

Tel: +49 (0)721 47080525

Fax: +49 (0)721 47080537