

- **High Throughput**
Up to 24 samples at a time
- **Uses standard sample tubes**
- **Two-Year Warranty**
- **Customized tube racks available**
- **Generate a range of fragment sizes**
(e.g. 150 – 3,000 bp)
- **Lowest Cost**



Sample Tube Rack Options for the Q800R2 System



#440
8 tube holder
(1.5ml Polystyrene tubes)



#449
12 tube holder
(600ul PCR tubes)



#445
24 tube holder
(300ul PCR tubes)

The new Q800R2 Sonicator system was designed specifically for DNA and Chromatin shearing. DNA can be sheared to specific size ranges making it an ideal system for preparing samples for Next Gen Sequencing. The device is compatible with commercially available sample tubes and is capable of processing up to 24 samples at one time.

Qsonica has over 40 years of experience manufacturing ultrasonic equipment and has sold thousands of laboratory sonicators around the world. All products are designed, manufactured and marketed from our facility in Connecticut and include a full 2-year warranty.

The Q800R2 is a complete package including a chiller to control temperature, digital operating system with programmable memory, high intensity ultrasonic horn and sound reducing enclosure.

4 tube rack options are offered to accommodate 50ul - 1ml sample volumes using a variety of commercially available sample tubes. 50ul or smaller volumes can also be processed. Samples are sonicated in closed vessels to prevent cross contamination and foaming. The Q800R2 incorporates sample rotation to ensure even sonication and reproducible results. Internal lighting illuminates the sample tubes so they can be viewed during processing.

Recent Installations:

- Baylor Medical College
- California Institute of Technology
- EMD Millipore
- Genentech
- Harvard Medical School
- Massachusetts General Hospital
- Memorial Sloan Kettering
- New England BioLabs
- NIH
- Smithsonian Institute
- The Jackson Laboratory
- UCLA
- University of Cambridge
- University of Texas
- Wash. Univ. St. Louis
- Weill Cornell Medical College

Chromatin Shearing

Example protocols and results are based on customer feedback.

Sample Protocols:

Mammalian Chromatin

Cell Type: HEK 293T (2) 10cm dishes
70-80% confluent

Total Sample Volume: 300ul

Fixation Time: 1% Formaldehyde, 13 min

Sonicator Amplitude Setting: 70%

Sonication Pulse Rate: 15 seconds On,
45 seconds Off

Total Sonication On Time: 30 min

Yeast Chromatin

Cell Type: Wild type *S. pombe* cells
grown to an OD of 1.3-1.5 in YEA.

Total Sample Volume: 300ul

Fixation Time: 1% Formaldehyde, 15 min

Sonicator Amplitude Setting: 100%

Sonication Pulse Rate: 20 seconds On,
40 seconds Off

Total Sonication On Time: 30 min

C. elegans Chromatin

Cell Type: *C. elegans* culture;
Nuclear extract 1mg/ml

Total Sample Volume: 500ul

Fixation Time: 2% Formaldehyde, 20 min

Sonicator Amplitude Setting: 70%

Sonication Pulse Rate: 30 seconds On,
30 seconds Off

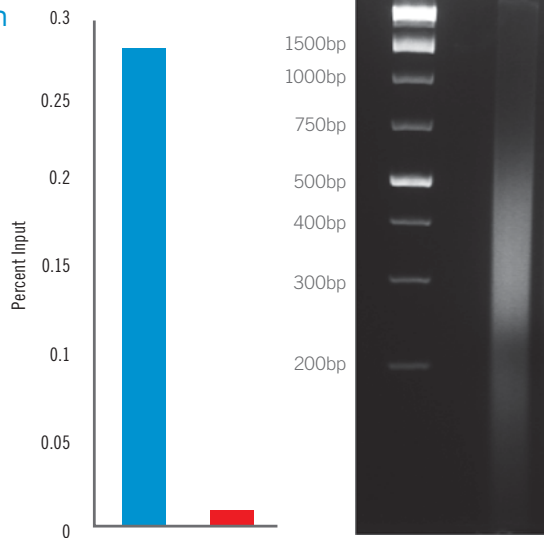
Total Sonication On Time: 20 min

Sample Results:

C. elegans Chromatin Prep & Chip

500 ul Nuclear Extract,
10ul Pol II Ab (8WG16)

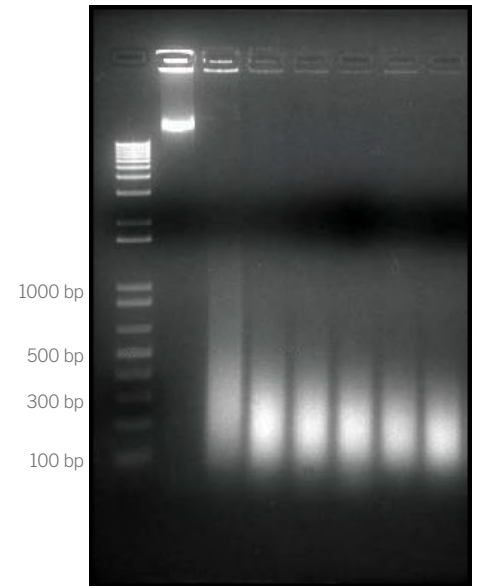
■ Protein-Coding Gene
■ Ribosomal RNA Gene



Yeast Chromatin Prep & Chip

Total Sonication Time (min)

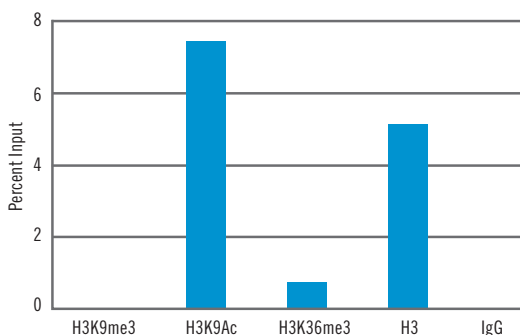
M* 0 10 20 30 40 50 60



* Note: Lane M is the NEB 1kb Plus ladder

Mammalian Chromatin Prep & Chip

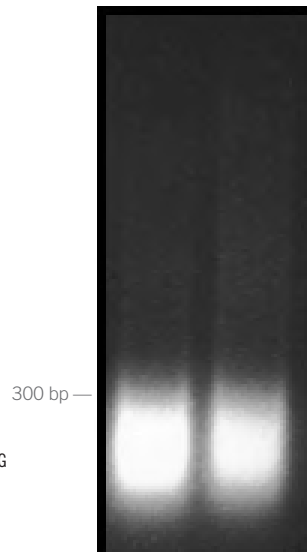
Chromosome 10*



Chr10 Primer sequences: Forward - TCCTTCTCCCAACAATCAGC Reverse - GATGTCGCTCCGAATCTTG
Antibodies Used: H3K9me3 (abcam8898), H3K9Ac (upstate 07-352), H3K36me3 (abcam
ab9050), H3 (abccamab1791)

* Average of two independent replicate chromatin in pane

Replicates 1 2



Sample protocols
and publications for
additional species and
cell lines are available in
the literature section
of www.sonicator.com

www.sonicator.com/dna

DNA Shearing

Example protocols and results are based on customer feedback.

Sample Protocols:

Bacterial Genomic DNA

Cell Type / Concentration: *E.coli* / 250ng

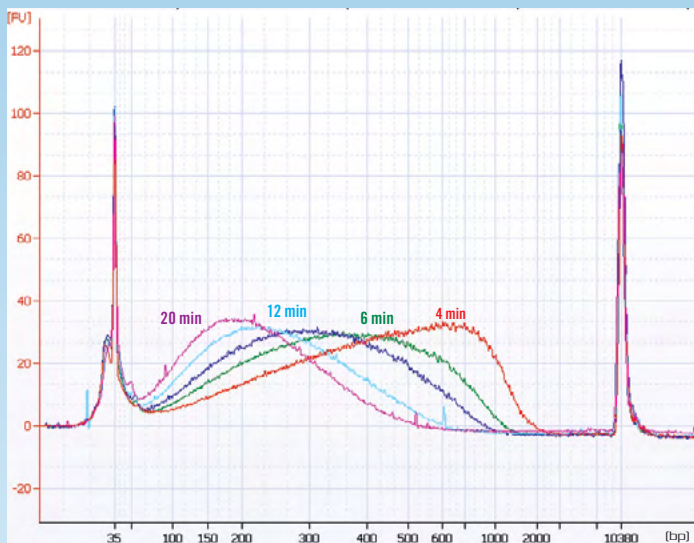
Sonication Pulse Rate: 15 seconds On, 15 seconds Off

Total Sample Volume: 200ul in 0.5ml tubes

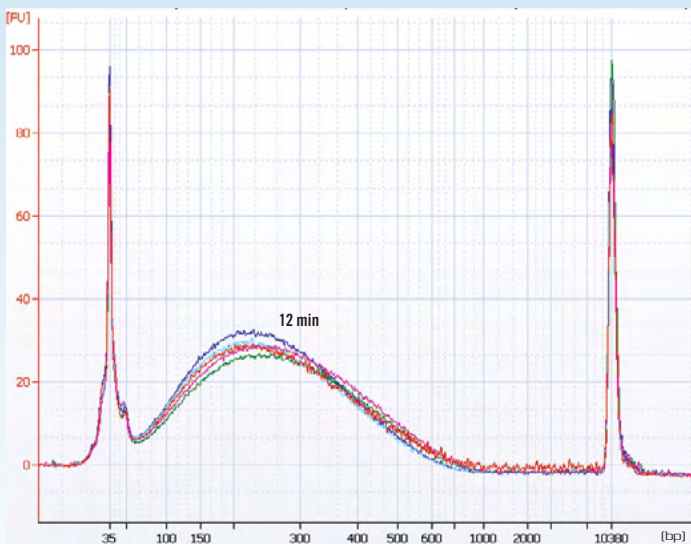
Total Sonication On Time: As indicated below

Sonicator Amplitude Setting: 20%

Fragmentation Over Time



Testing Independent Replicates



Human Skeletal Myoblast Genomic DNA

Cell Type / Concentration: LHCN-M2 Skeletal Myoblast / 200ng

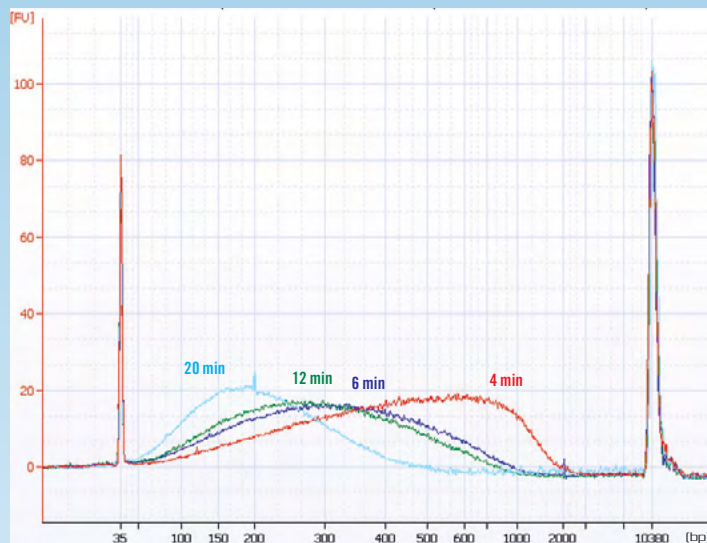
Sonication Pulse Rate: 15 seconds On, 15 seconds Off

Total Sample Volume: 200ul in 0.5ml tubes

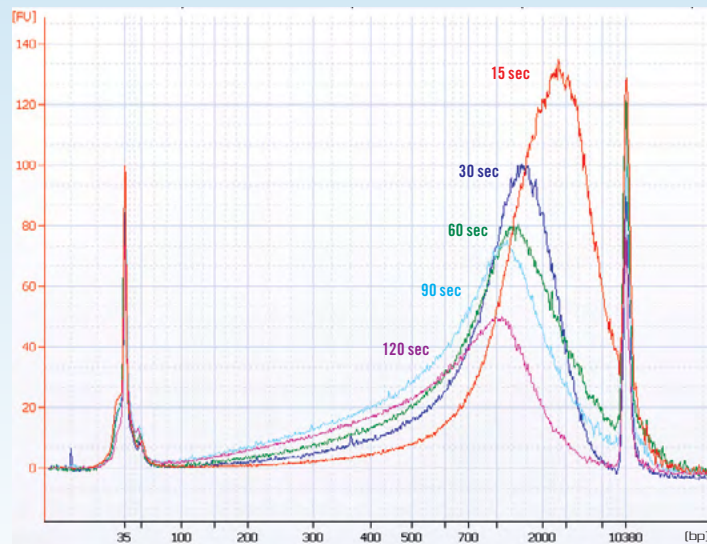
Total Sonication On Time: As indicated below

Sonicator Amplitude Setting: 20%

Fragmentation Over Time

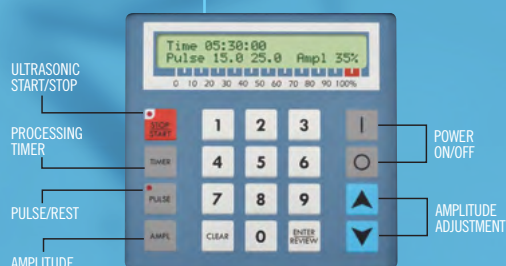


Fragmentation Over Time





Digital operating system with programmable memory



Completely integrated system includes a Chiller to control processing temperatures

Rotating sample tube holder with internal lighting

Technical Specifications:

Power Rating: 750 Watts
Frequency: 20 kHz
Programmable Timer: 1 second to 10 hours
Voltage: 110V*, 50/60Hz

**Specify desired voltage for export*

Dimensions:

Generator 8.00" W x 15.25" L x 8.50" H
 Enclosure 11.50" W x 12.00" L x 20.00" H
 Chiller 11.00" W x 13.00" L x 13.00" H

Part No. Q800R2

Includes:

- Generator
- Converter
- Ultrasonic Horn
- Rotation System
- Chiller
- Cables
- Tubing
- #440 Tube Rack
- Wrench set

Additional information on our website:

- Sample Protocols
- Optimization tips
- Video
- Customer Feedback
- Recent Publications



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