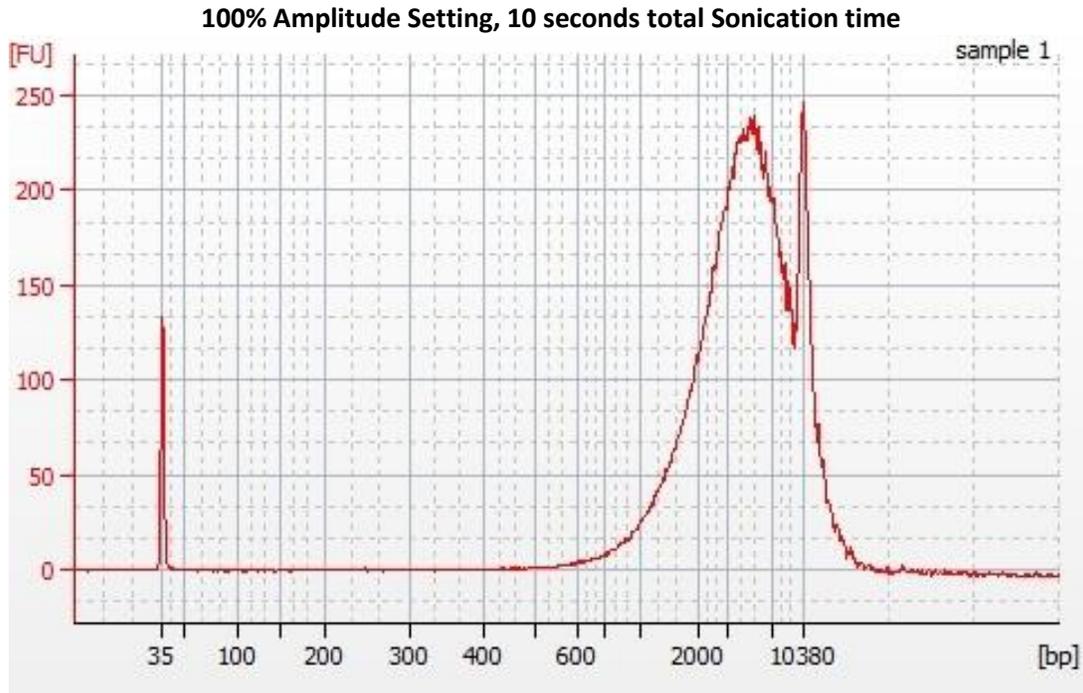


## Human Genomic DNA Shearing

Example protocols and results are based on customer feedback.



### Protocol Information

**Cell Type:** Human genomic DNA

**Total Sample Volume:** 4.5ug of gDNA in 150ul TE

**Sample Tubes used:** 1.5 ml polystyrene tubes from Evergreen Scientific

**Sonicator Amplitude Setting:** 100%

**Sonication Pulse Rate:** 5 seconds. Stop sonication, quickly spin down samples and then sonicate for another 5 seconds

**Total Sonication On Time:** 10 seconds

**Sample Process Temperature:** 4°C

**Sequencing Platform:** Raindance - Thunderstorm

**Customer Notes:** The QSONICA instrument can be used instead of COVARIS to shear gDNA prior to loading Thunderstorm.

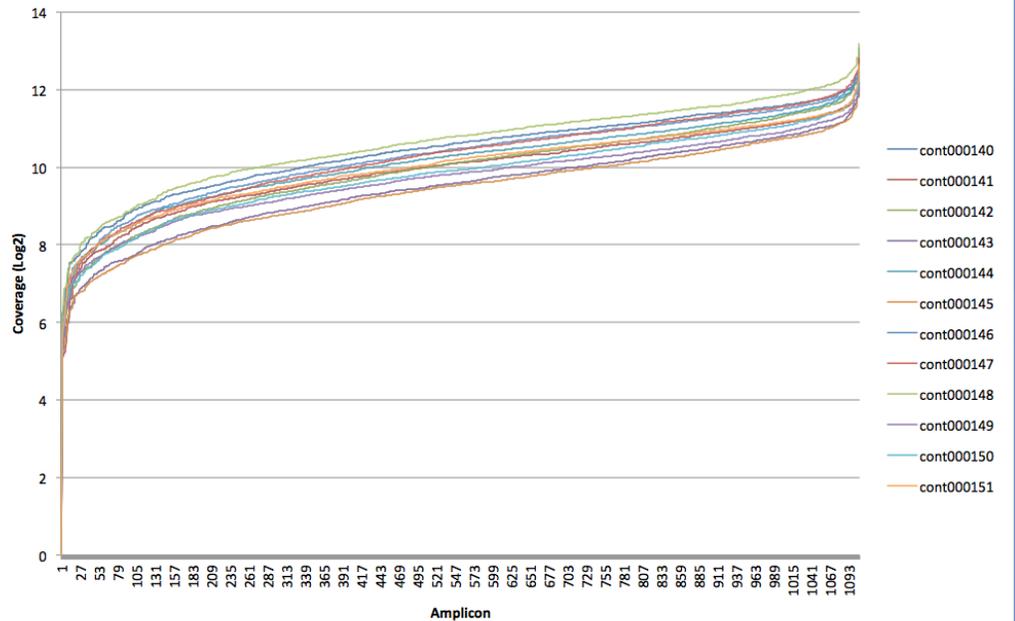
Advantages of the Q800R:

- Compatible with commercially available sample tubes as opposed to Covaris (requires custom tubes made exclusively by Covaris). Tubes: \$0.06 per tube for QSONICA vs \$7.20 per tube for COVARIS!
- Capable of processing up to 24 samples at once
- Shearing time: Seconds vs hours for Covaris (4hours per 24 samples)

Bioanalyzer Fragment Size Results

Sample ID	Detected fragments (bp)	% Total
cont000140	1,993	39.8
	2,363	12.2
	3,266	45.8
	11,347	2.2
cont000141	1,924	100
cont000142	1,822	55.2
	2,766	44.8
cont000143	582	4.2
	1,591	56.4
	3,193	39.4
cont000144	184	2.2
	380	3.4
	572	5.4
	785	6.3
	1,549	45.4
	2,959	37.3
cont000145	1,718	44.5
	2,720	55.5
cont000146	374	10.8
	492	9
	532	2.6
	586	3.5
	1,471	57.3
	6,072	16.8
cont000147	447	1.3
	475	0.8
	536	3
	589	1.8
	638	2
	741	4.2
	1,620	39.9
	2,688	7
	3,546	40
cont000148	1,667	51.1
	2,802	48.9
cont000149	1,644	75.6
	2,877	24.4
cont000150	769	5
	1,606	49.8
	2,963	45.2
cont000151	1,670	67.8
	6,278	10.6
	7,351	21.6

QSONICA Validation Coverage Plot



Sample ID	# LC amplicons
cont000140	1
cont000141	2
cont000142	1
cont000143	2
cont000144	2
cont000145	5
cont000146	3
cont000147	2
cont000148	1
cont000149	2
cont000150	3
cont000151	2