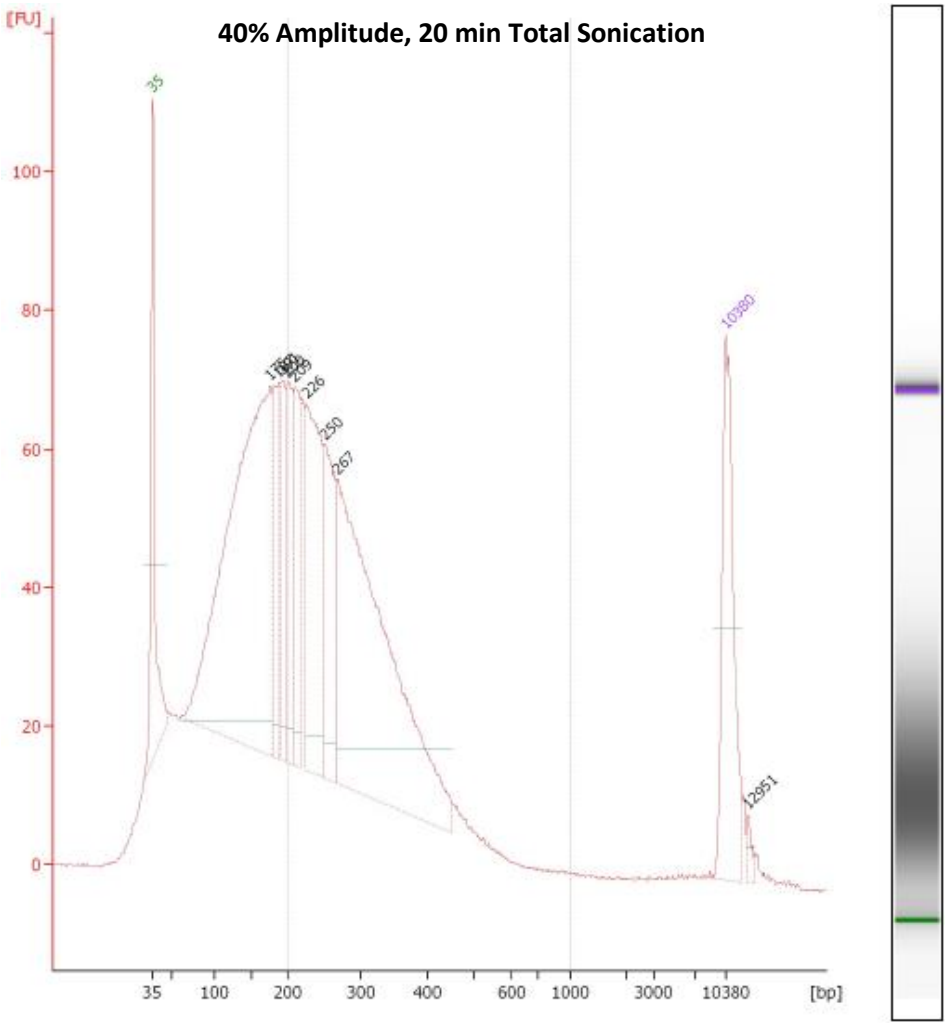
Human Genomic DNA Shearing

Example protocols and results are based on customer feedback.



Protocol Information

Cell Type: Human gDNA *(Male Genomic DNA from Zyagen (#GH-180M))*
Total Sample Volume/Concentration: 100ul / (4ug of gDNA)
Number of Samples Sonicated per run: 18
Sonicator Amplitude Setting: 40%
Sonication Pulse Rate: 15 seconds On, 15 seconds Off
Total Sonication On Time: 20 min.
Sample Process Temperature: 3°C

Customer Notes: We sonicated purified genomic DNA for the purpose of preparing sequencing libraries for different NGS sequencing platforms that require different target lengths. We use up to 4 micrograms gDNA in 100 ul water. I found the higher the amplitude, the tighter the distribution and I was able to achieve a fragment size of 150 bp to 200 bp.
This sonicator is very easy to use and versatile. We are able to put more DNA per tube which greatly reduces time of sample processing pre and post sonication (i.e. no vacuum centrifugation to concentrate sample). We can use standard 0.2 ml tubes (BrandTech #781305) which reduces cost and the temperature is regulated to decrease the risk of degradation.

Sequencing platform: LifeTechnologies - Ion Proton Torrent