

# microHomogenizer™ Cartridges: Rapid homogenization of tissue samples



ClaremontBio's microHomogenizer™ devices are miniaturized solutions for quick and easy homogenization of tissue. Designed to be portable, microHomogenizer™ cartridges are convenient for use on the lab bench, in an ice bucket, in the cold room, in a biological safety hood or in the field. Developed as a disposable, the devices mitigate the risk of sample cross-contamination and limit exposure of the sample to the user.

The homogenization of the sample is rapid (Figure 1) and can be completed in under 30-90 seconds for soft tissues and 1.5-3 minutes for harder tissues. High molecular weight genomic DNA is consistently isolated from sample prepared using microHomogenizer™ devices (Figures 2 and 3). Samples up to 50 mg can be homogenized in small volumes (200-400µL) and move directly downstream for DNA isolation.

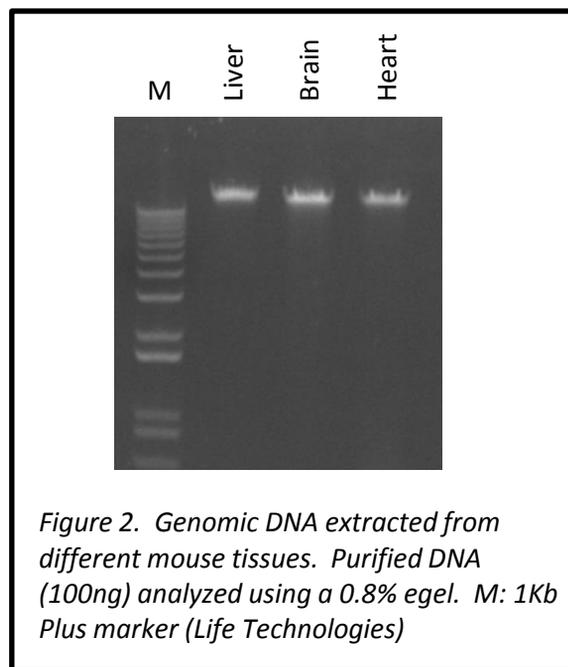


Figure 2. Genomic DNA extracted from different mouse tissues. Purified DNA (100ng) analyzed using a 0.8% egel. M: 1Kb Plus marker (Life Technologies)

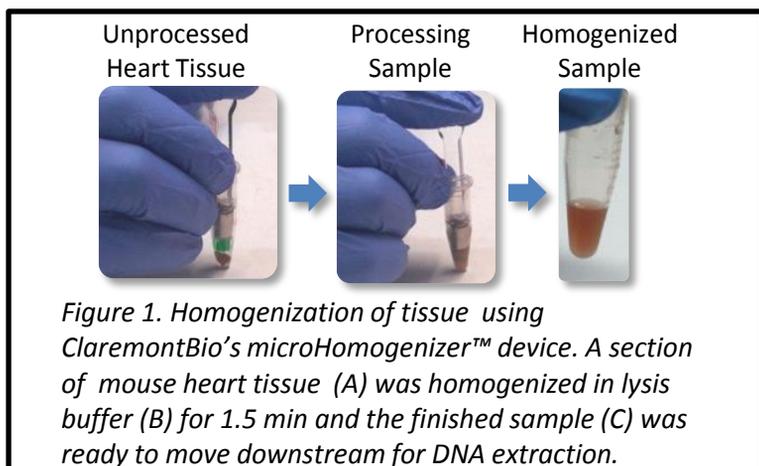


Figure 1. Homogenization of tissue using ClaremontBio's microHomogenizer™ device. A section of mouse heart tissue (A) was homogenized in lysis buffer (B) for 1.5 min and the finished sample (C) was ready to move downstream for DNA extraction.

Table 1. Mouse tissue gDNA yield. Tissues were homogenized using microHomogenizer™ devices followed by extraction using the DNeasy® Blood and Tissue kit.

Mouse Tissue	Sample Amount	260/280 ratio	DNA (ug)
Liver	18mg	1.94	30
Brain	19mg	1.85	24
Heart	15mg	2.08	14
Lung	15mg	1.87	14
Muscle	14mg	1.83	5
Tail	19mg	1.89	30

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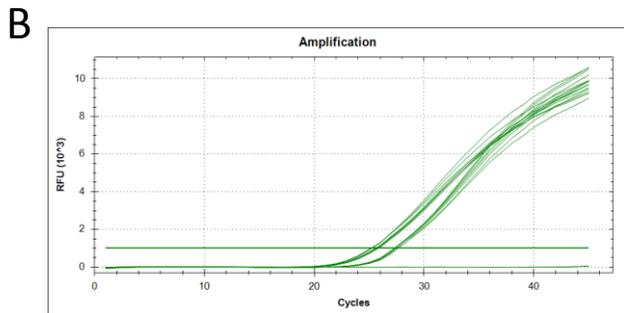
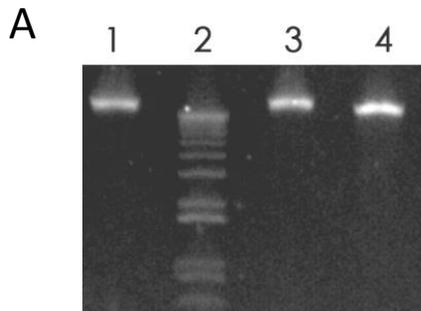


Figure 3. gDNA isolated from mouse tail tips after homogenization using microHomogenizer™ devices. (A) Purified DNA (100ng) was analyzed on an 0.8% egel. Lane 1: mouse gDNA (Promega), Lane 2: 1Kb Plus marker (Life Technologies), Lane 3 and 4 : gDNA isolated from mouse tail tips. (B) Amplification of isolated tail gDNA by RT-PCR. gDNA isolated from four tail samples were amplified at 10 and 1 ng using  $\beta$ -actin primers pairs



## microHomogenizer™ Kits

		w/ Bat-Pac		w/o Bat-Pac	
Kit Size	Cat. #	Price	Cat. #	Price	
6 pk	- 04.270.06	-- \$36	04.271.06	-- \$31	
24 pk	- 04.270.24	-- \$108	04.271.24	-- \$103	
48 pk	- 04.270.48	-- \$180	04.271.48	-- \$175	

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