Homogenization protocol for Cow heart using Bullet Blender

Materials:

Samples: 3 g of frozen Heart from a healthy cow

Bead lysis kit: 50 mL 50 mL tube (SKU: TUBE50TPP-S) filled with 6 mL of beads: 13g/3 mL of each UFO beads (SKU: SSUFO35 & SKU: SSUFO56)

Buffer volume: 10 mL of buffer

Method - Homogenization:

1. Determine the sample size, buffer (depends on the downstream application), buffer volume and the bead lysis kit. ***Note:*** *Choose the correct* lysis kit *for optimal homogenization.*
2. Cut the sample and place into the buffer-filled tubes (Figure 1).
3. Close the tubes tightly and place into the Bullet Blender. ***Note:*** *Confirm the compatibility of the* contact plate *with the tubes (RINO/EPPENDORF) used.*
4. Set the speed and time on the Bullet Blender (Table 1). Press "Start", and wait for the run to complete.

Bullet Blender Model	Settings
BB50-DX-AU	Speed 12; Time 15

5. Remove the tubes and visually inspect the samples to confirm complete homogenization (Figure 2).
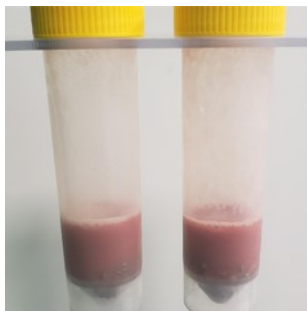   ***Note:*** *Foaming in the sample tubes may be observed after homogenization.*
6. If homogenization is satisfactory, proceed with the downstream steps.

Figure 1: Pre-homogenization	**Figure 2**: Post-homogenization	*Homogenization verification*