

<b>Title</b>	<b>Nucleofection</b>		
<b>Protocol Number</b>	MOLBIO19002	<b>Written by</b>	Duha A.
<b>Adapted from</b>	CFP lab (N. Douanne)	<b>Version</b>	1.0
<b>Date created</b>	15 Nov 2019	<b>Version update</b>	NA

**Materials:**

Lonza nucleofector

**Notes:** Cuvette must be kept on ice if they're outside the fridge

Protocol:

- 1) Take out you're your DNA form -20°C. Measure the DNA concentration. For each sample, you'll need 1 -5 µg of plasmid DNA for successful transfection.
- 2) Count the parasites: a minimum of  $5 \times 10^7$  parasites is necessary for the nucleofection. Calculate the volume required to reach this number of parasites and then pour it into a 15 mL tube.
- 2) Centrifuge for 5 min at 2000 rpm at 20 ° C. Discard the supernatant
- 3) Resuspend the pellet in 100 µl of Human T-cell buffer and mix thoroughly
- 4) Take 100 µL of resuspended solution and place in a new eppendorf
- e) Add 1-5 µg of the vector to be transfected (in 1-10uL)
- 5) For each sample (eppendorfs), transfer all the contents into the electroporation cuvettes (be careful to always identify each sample) and place them in the ice
- 6) Wipe the metal part of the cuvettes and proceed with nucleofection (program U-033)
- 7) Immediately add 1 mL of M199 medium (supplemented with FBS and Hemin) to the cuvettes
- 8) Prepare flasks for culture: 10 ml of M199 medium (supplemented with FBS and Hemin) + 10 µl of Biopterin [10 mM]
- 9) Transfer the entire contents of each electroporation cuvette into the corresponding flask
- 10) Homogenize and incubate the flask at 25 °C for 25 hrs.
- 11) Add the appropriate type and amount of antibiotic to the growing culture.