Station A: MagMAX Viral/Pathogen Nucleic Acid Isolation (v2)

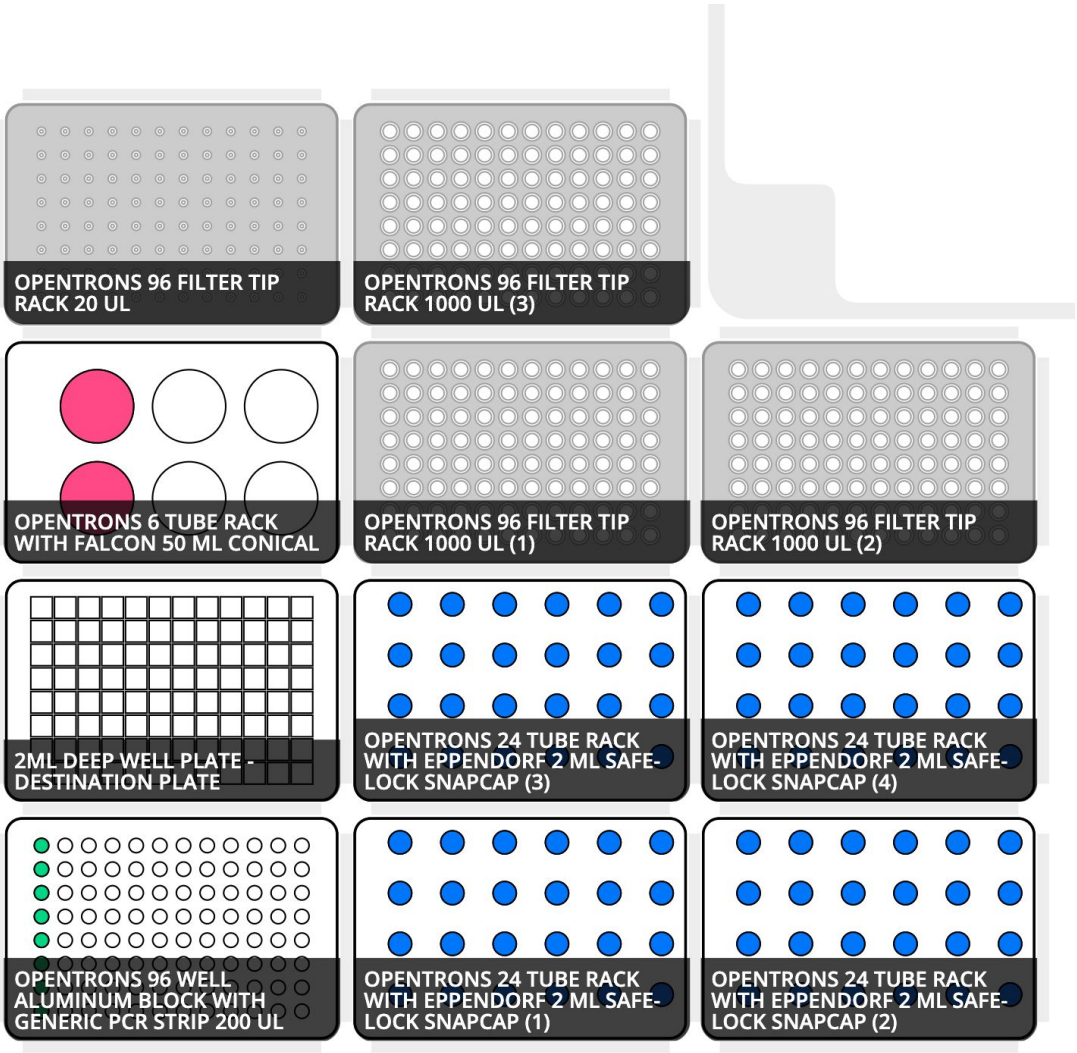
Code parameters:

- Change the sample number on line 14 (default is 8, max is 96)
- Change the sample volume (µL) on line 15 (default is 400µL)
- Tip rack tracking can be changed to from False to True on line 16 (default is False)

Pipettes:

- P1000 single-channel on the right mount
- P20 multi-channel on the left mount

Deck Layout:



Labware and module requirements:

- ≤ 96 x 1.5 - 2mL tubes **[input - samples]**
- 4 x 24-Position Tube Rack **[holds 1.5/2mL sample tubes]**
- 3 x 1000µL Filter Tip Racks
- 1 x 6-Position Tube Rack **[holds 50mL tube with Binding Bead Mix]**
- 2 x 50mL Falcon Tube **[1 tube per 48 samples]**
- 1 x 2mL Deep Well Plate **[output - destination plate]**
- 1 x 20µL Filter Tip Racks
- 1 x 96-Well Aluminum Block **[holds 1 PCR strip tube in column 1]**
- 1 x 200µL PCR strip tube **[holds Proteinase K]**

Volume requirements:

Note ~ *the below volumes account for a dead volume; the dead volume can be adjusted depending on the calibration of the pipette to the labware, but we've found it's best to have a dead volume of at least 10%*

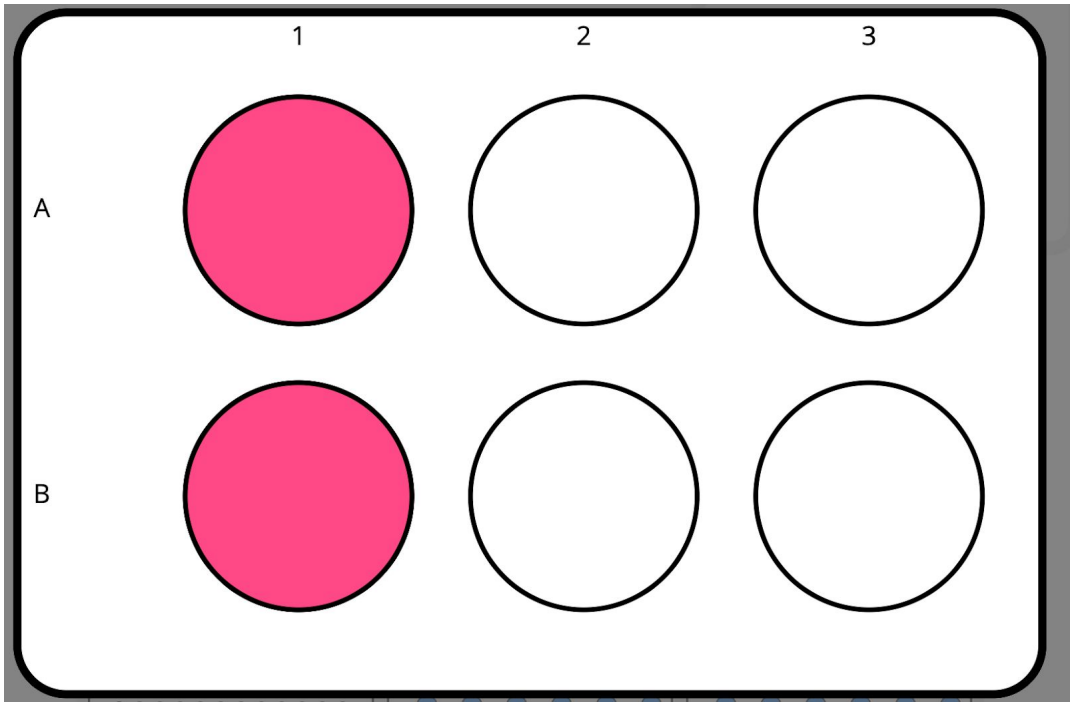
Reagent	**Volume per sample**	**Volume for 8 samples**	**Volume for 48 samples**	**Volume for 96 samples**
Binding Bead Mix	550µL	4.84mL	29mL	58.1mL
Proteinase K	10µL	90µL	530µL	1060µL

Before you begin:

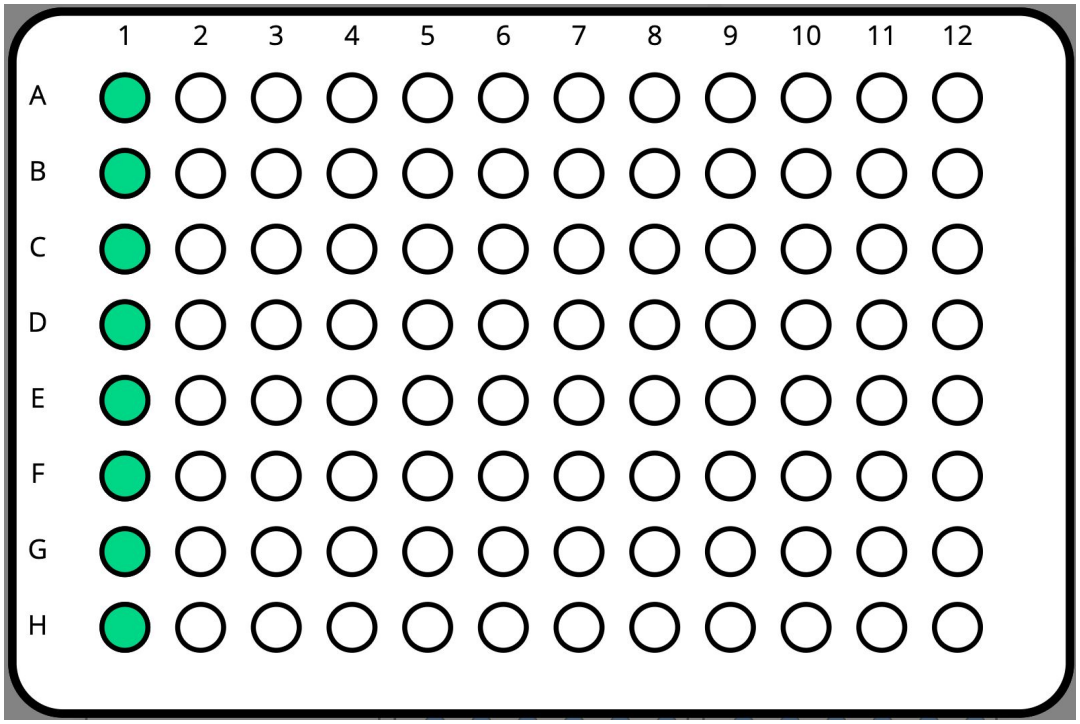
1. Load the samples onto the tube racks, starting with slot 2, then slot 3, slot5, and slot 6
2. Create the **Binding Bead Mix for slot 7**

Reagent	**Volume per sample**	**Volume for 8 samples**	**Volume for 48 samples**	**Volume for 96 samples**
Binding Solution	530µL	4.66mL	28mL	56mL
Total Nucleic Acid Magnetic Beads	20µL	176µL	1050µL	2100µL

3. Add the binding bead mix in the 50mL tube(s) to the rack in **Slot 7**



4. Divide the total volume of the Proteinase K mix by 8 and add it to a 200µL PCR strip tube to be place in **Slot 1** on top of a 96-well Aluminum Block in column1



The final destination will be the deep well plate in slot 4. Once the run is finished, move the deep well plate to Station B to complete the remainder of the extraction protocol.