APR 15, 2024

DOI:
dx.doi.org/10.17504/protocols.io.261ged62yv47/v1

Protocol Citation: Jason Waligorski 2024. Creating Plate Layout in FIVTools. **protocols.io** https://dx.doi.org/10.17504/protocols.io.261ged62yv47/v1

Protocol status: Working
We use this protocol and it's working

Created: Jun 21, 2023

Creating Plate Layout in FIVTools

Jason Waligorski[1]

[1]Washington University School of Medicine @FIVE

Washington University FIVE @ MGI

kaushik.u

ABSTRACT

Plate layout creator in FIVtools

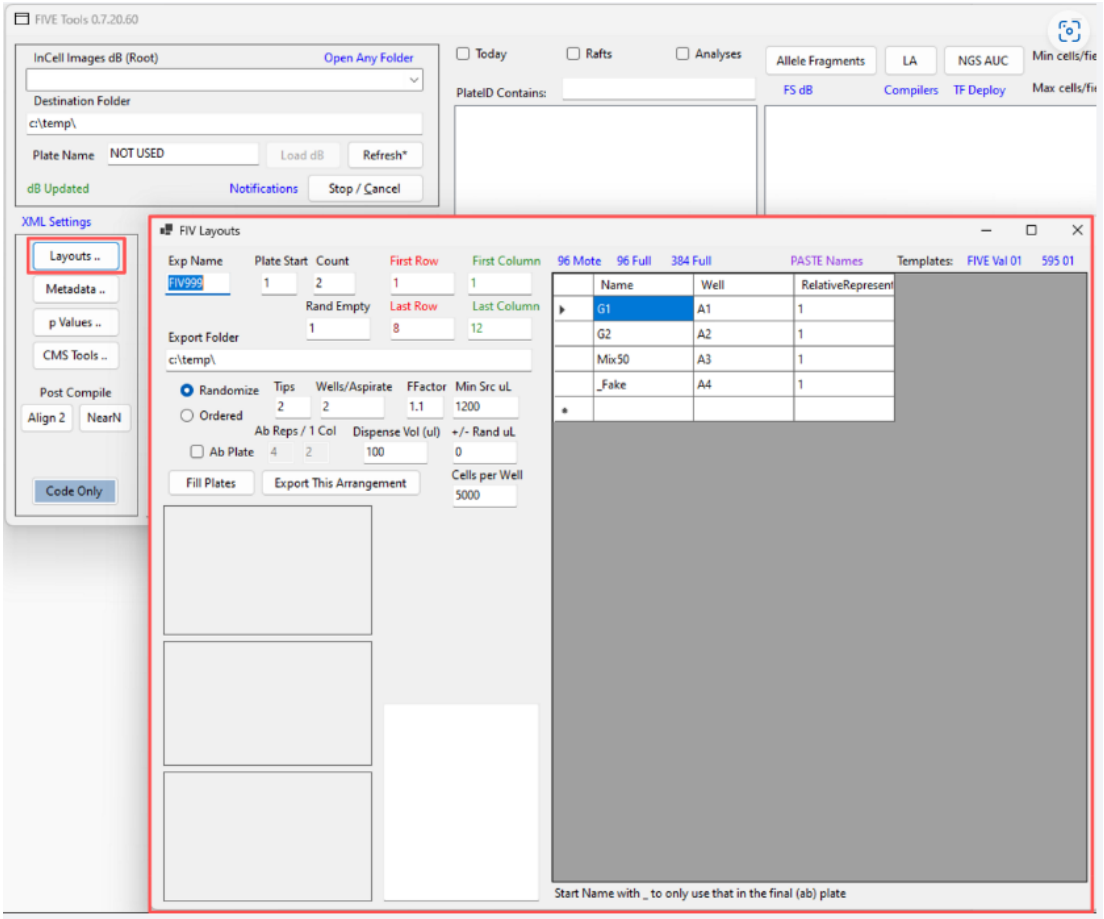
Last Modified: Apr 15, 2024

PROTOCOL integer ID: 83830

Creating Plate Layout in FIVTools

1 Open FIVTools

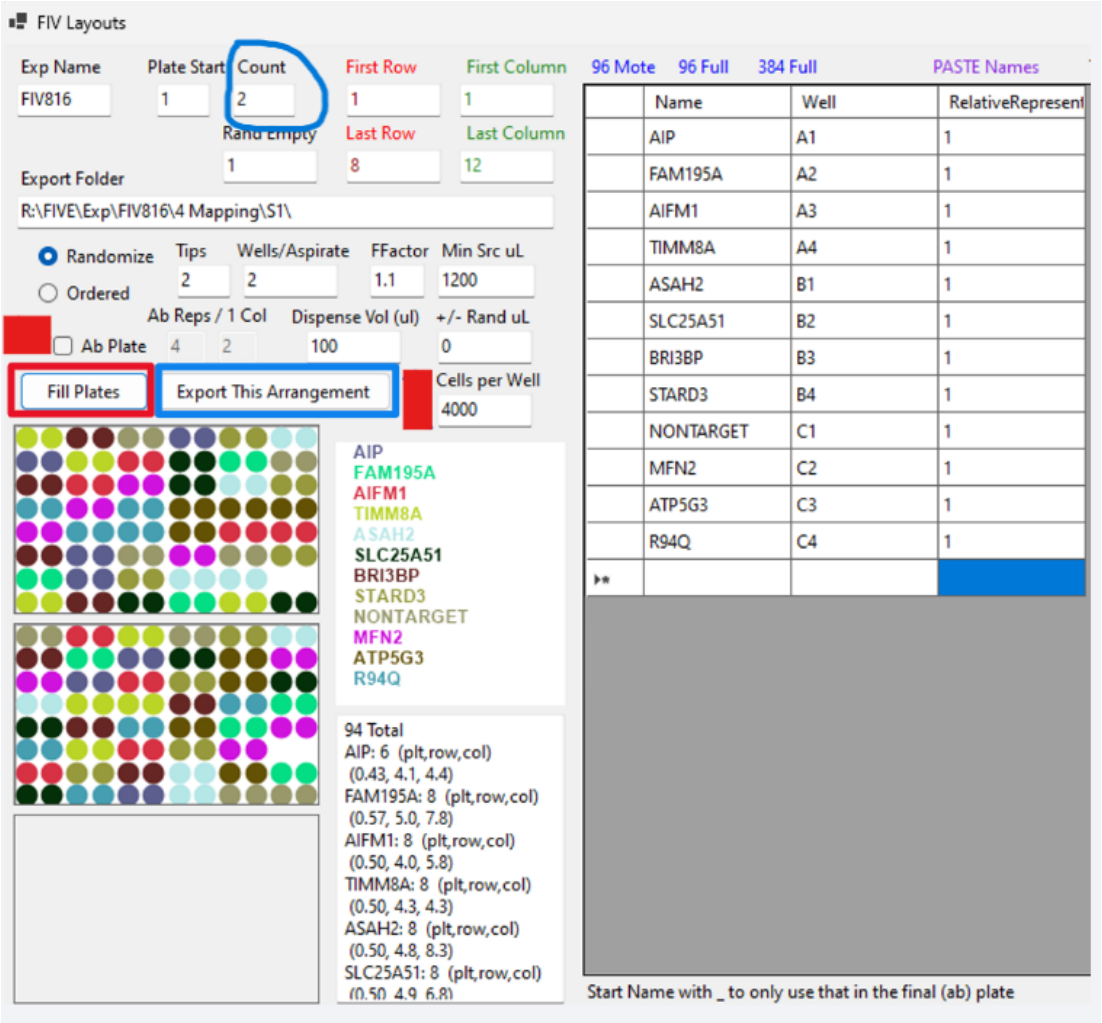
2 Click *Layouts*



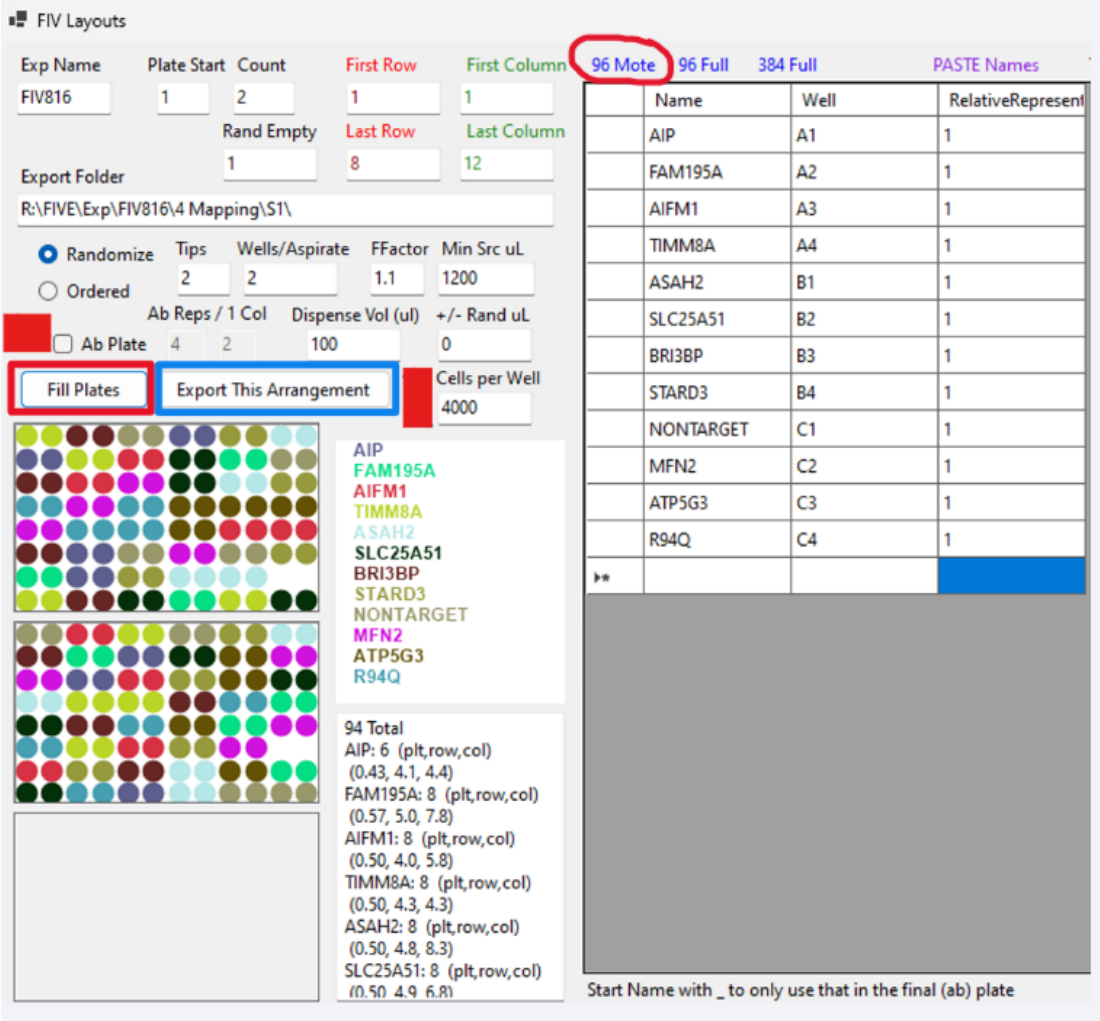
3 Update *Exp Name* field (highlighted in blue above) to the corresponding FIV experiment Number (make sure to keep “FIV” in the name)

4 Click once on the *Export Folde*r field so it updates the folder location based on the corresponding FIV experiment number

5 Choose the desired number of 96-well plates by typing 1, 2, 3, or 4 in Count

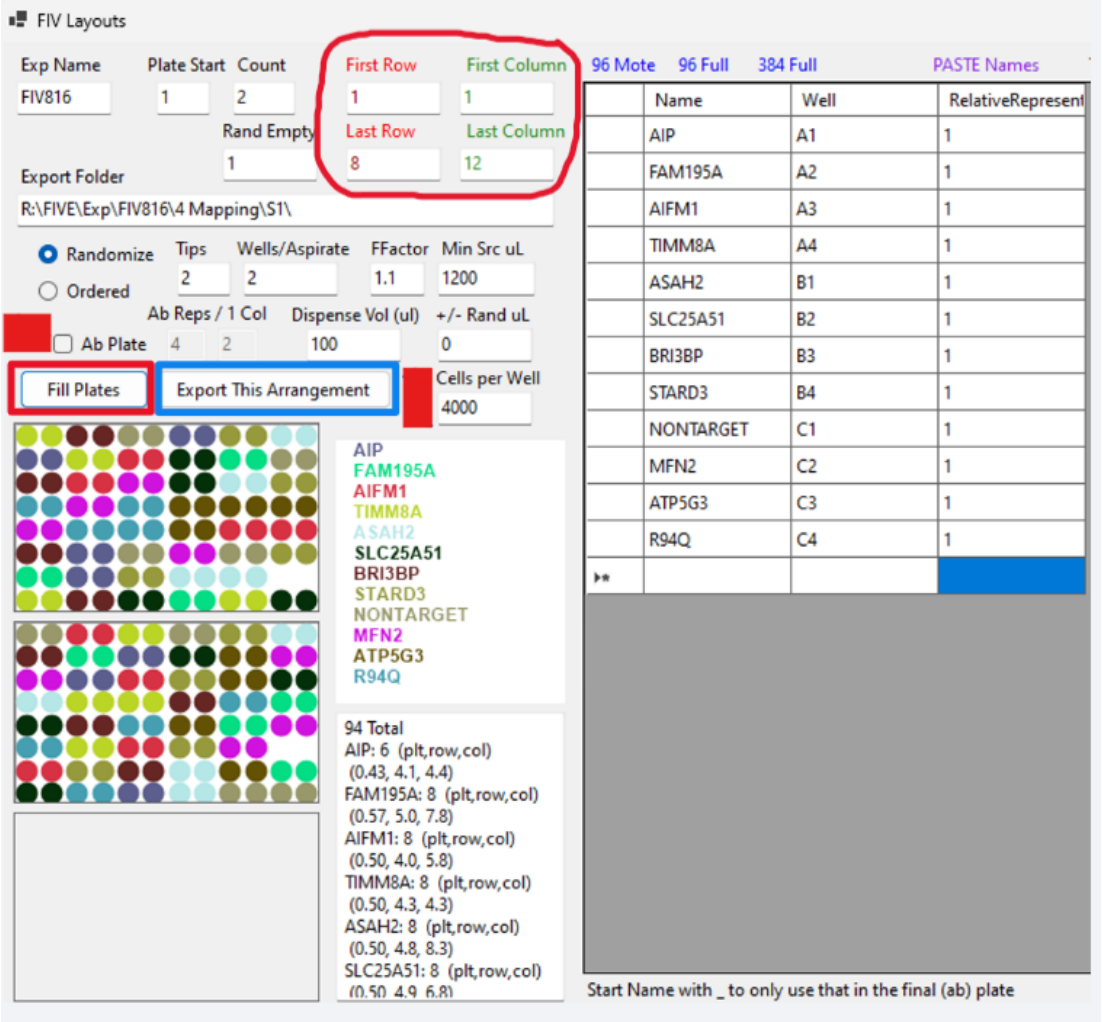


6 Select *96 Mote* to exclude plating from the outermost wells



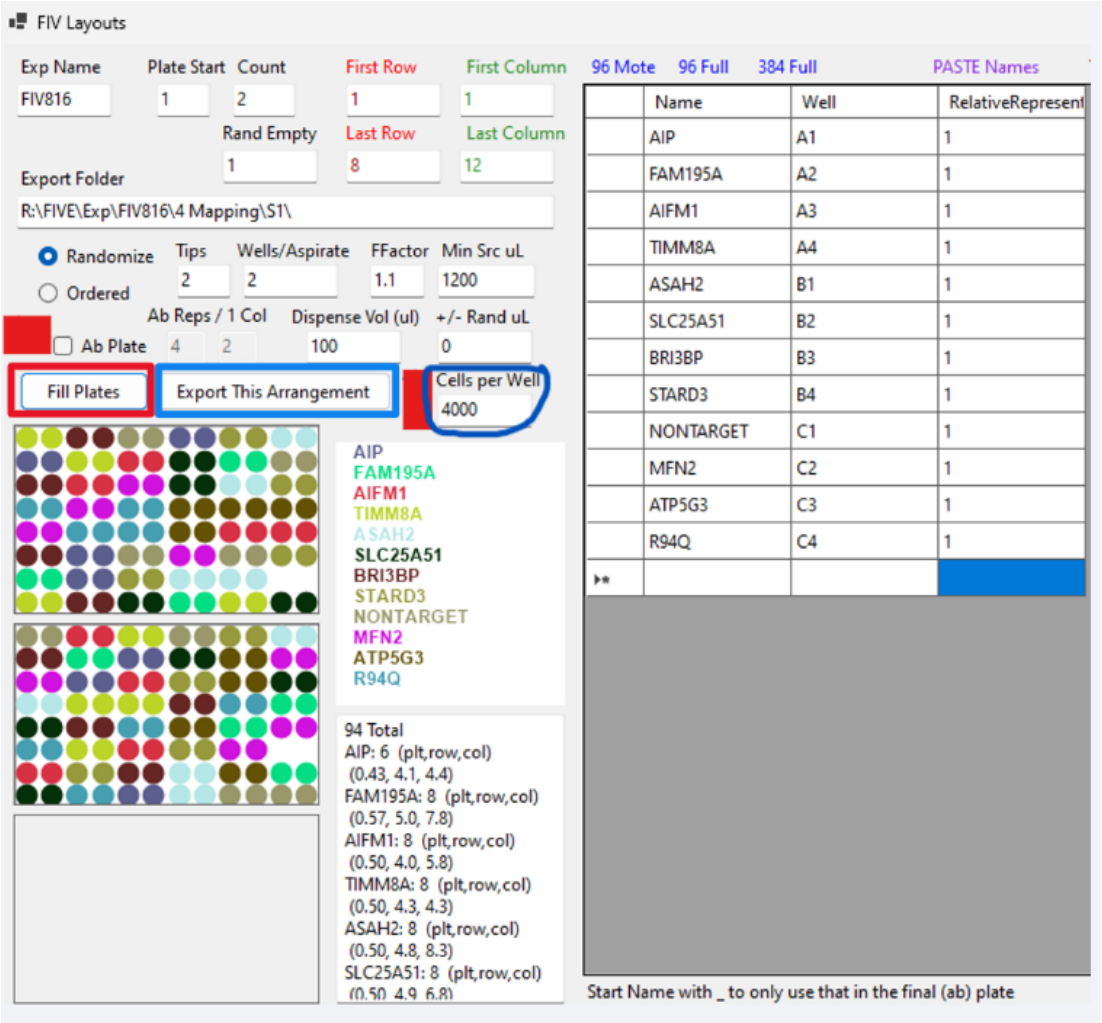
7 Select "384 Full" for a 384 well plate

8 If the layout is not standard (does not fall within 96 mote, 96 full, or 384 full), adjust the *First Row, First Column, Last Row*, and *Last Column* fields to fit your custom plate format.

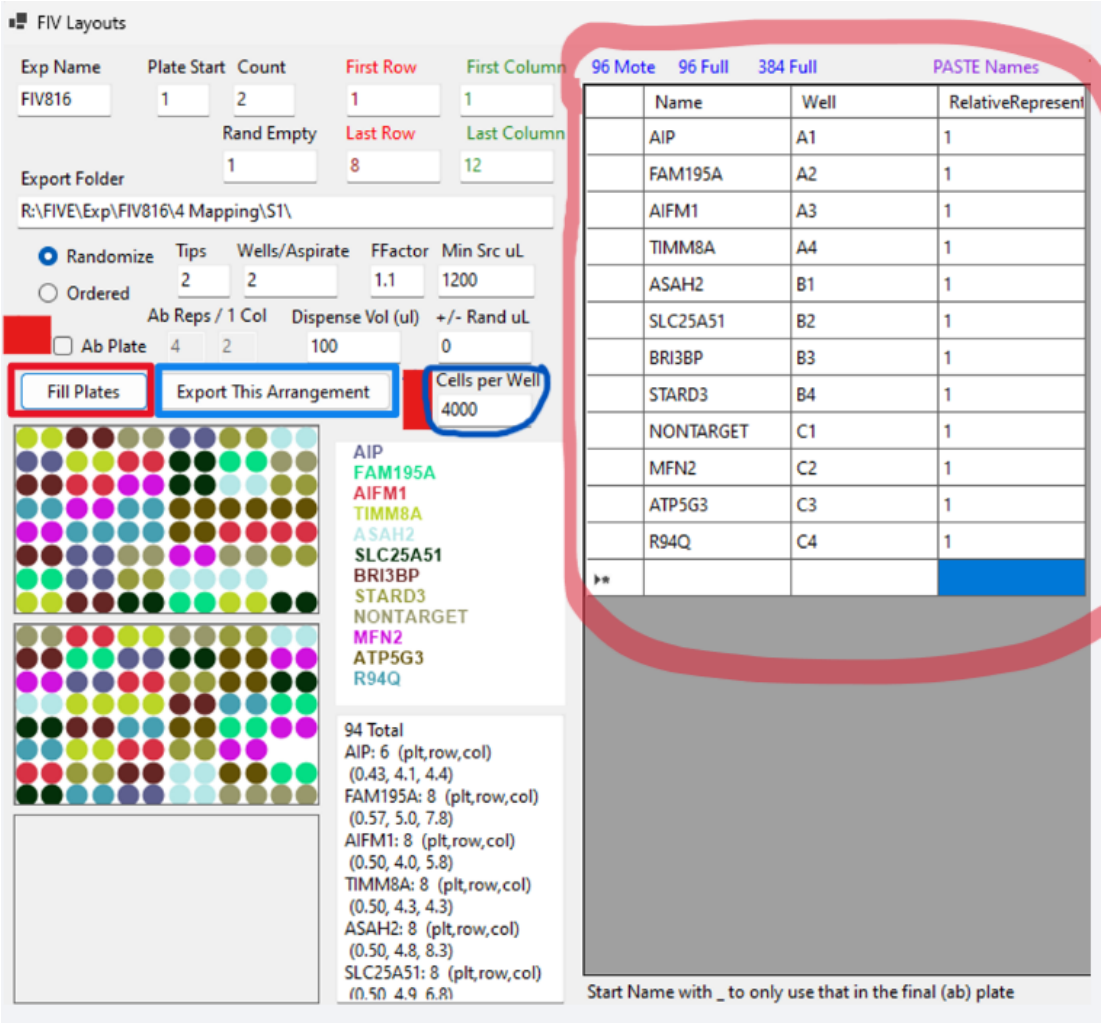


9 If doing an antibody plate, check the “Ab Plate” box and:
Make “Count” = 0 for one antibody plate
Make “Count” = 2 for two 96-well plates and an antibody plate

10 Change “Cells per Well” to desired plating density



11 Copy experimental condition names (often genotypes, dosages, G1/G2, etc.) and click “PASTE Names” to auto-fill the 12-well source plate.



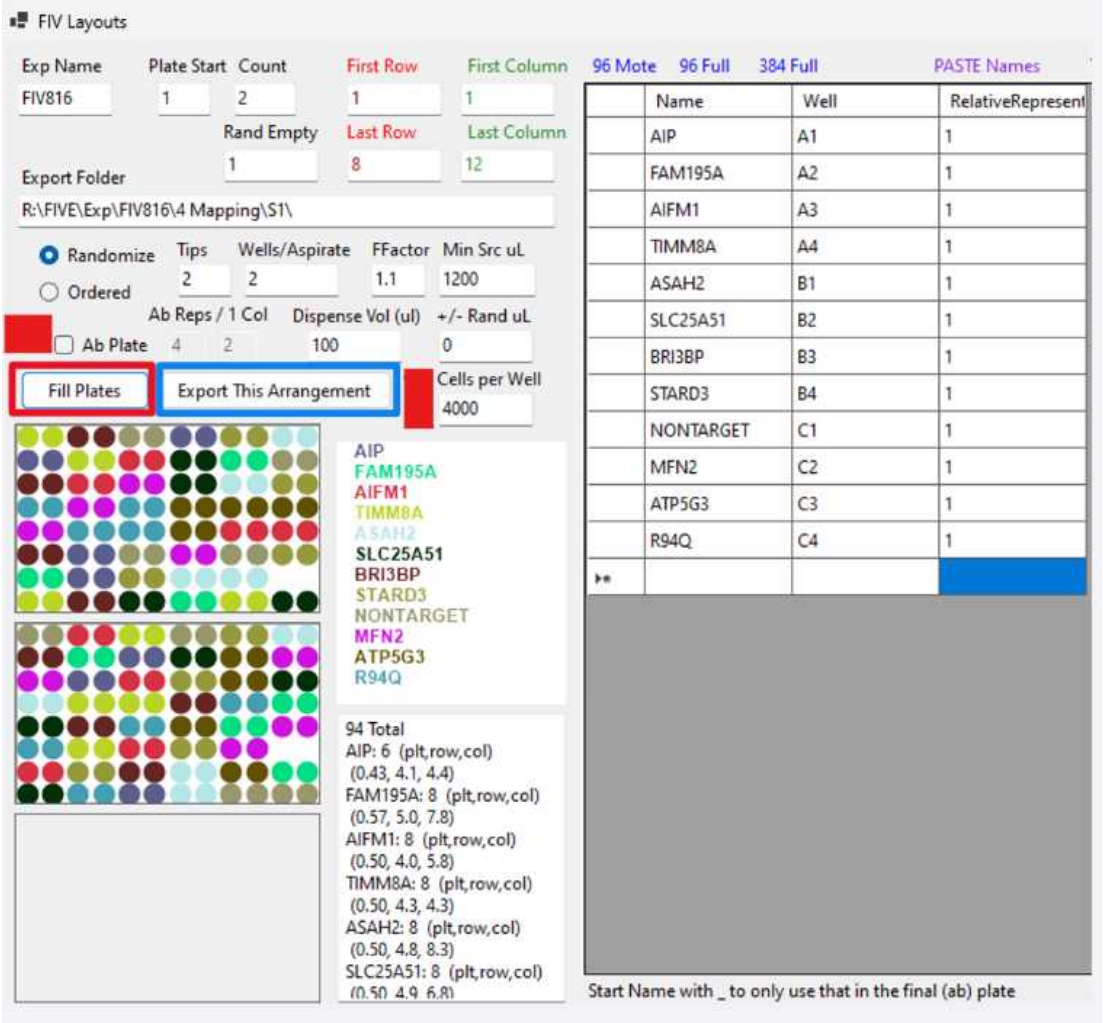
12 *Name* can also be manually filled

13 The *Well* column can only have row/column combinations of a 12-well plate (A-C, 1-4). Please note which names (experimental conditions) correspond to which wells.

14 *Relative Representation* allows you to assign different weights for representation in the 96-well plates

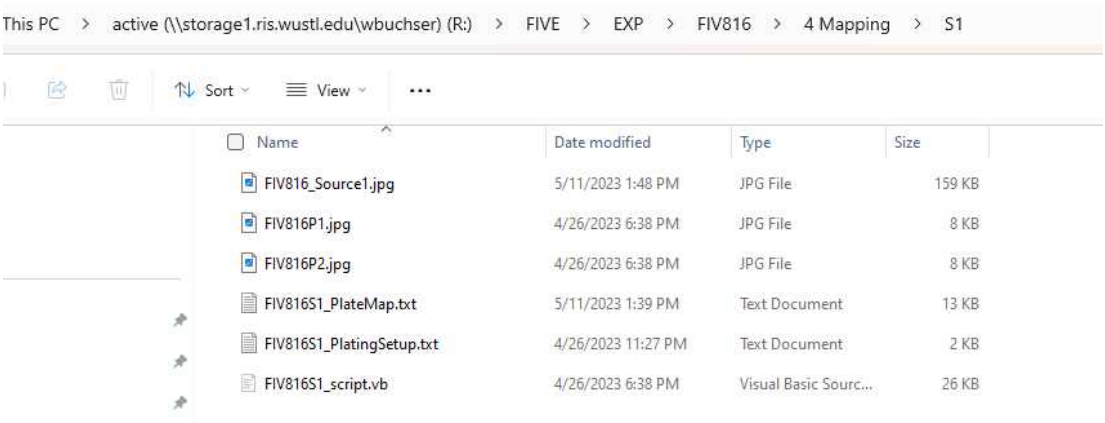
15 Use the underscore symbol to have a cell type only show up in the antibody plate layout (for example: "_cell type")

16 Click *Fill Plates (in red)*



17 A randomized plate layout will be populated based on your input criteria. Each condition will have a unique color in the layout window. Try to make sure the empty wells (positions with white space/no circles) are not on any edges. Also if doing multiple plates, make sure the empty wells are oriented differently across plates.

18 Go into the “4 Mapping” folder of the respective FIV experiment folder and make sure there is a PlateMap, PlatingSetup, and script.



19 After source and destination plates are physically created, excute Biomek plating in accordance with

Biomek 96-well plating - Google Docs