

Figure 1. Nanostraw device layers and proportions. A) Nanostraw devices used in this study are approximately the size of the wells in a 48-well plate. The device on the left shows that a drop of liquid placed on parafilm is contained within the delivery chamber, while the device on the right is filled with  $\sim 200 \mu\text{L}$  of culture media. B) The nanostraw devices can be made using different sizes of culture chambers which accommodate the common sizes of multi-well plates (96, 48, 24, 6, relative to a USA nickel coin).

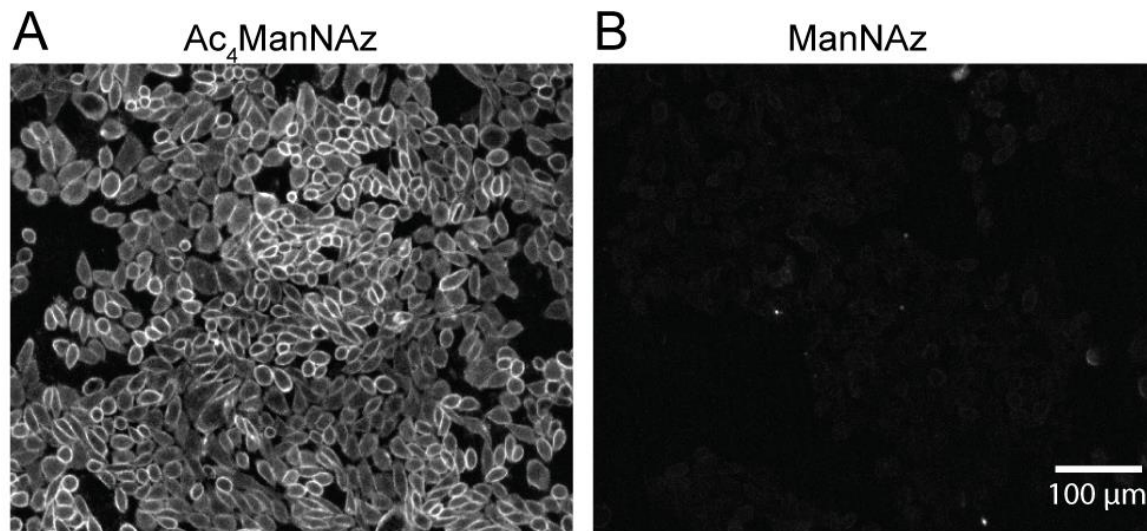


Figure 2. ManNAz vs  $\text{Ac}_4\text{ManNAz}$  comparison. A) Cell-permeable  $\text{Ac}_4\text{ManNAz}$  effectively enters cells cultured in a 96 well plate, effectively showing the characteristic cell border fluorescence after DBCO labeling. B) ManNAz is cell-impermeable, and fluorescence after DBCO labeling is poor.