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Repeat SPAC for Apt grafting on  $\text{LiCoO}_2$  (NH<sub>2</sub>-Apt  $\rightarrow$  DBCO-Apt)

① Modify NH<sub>2</sub>-Aptamer with DBCO-NHS:  
100  $\mu\text{M}$  apt-NH<sub>2</sub> (aliquot in freezer)

A

Modify x column: 0.5 nmol (5  $\mu\text{L}$  aliquot)

3 columns  $\rightarrow$  3  $\times$  0.5 nmol each!  $\rightarrow$  2 for samples and 1 for calibration curve!

in OMA-low bind appendant: (5 eq)  
the 1.5 nmol apt (3 together)  $\rightarrow$  7.5 nmol DBCO-NHS  
(3.724  $\mu\text{g}$ )

sol in PBS pH 8.3: 0.266 mg/ml

$$266 \mu\text{g} : 1000 \mu\text{L} = 3.724 \mu\text{g} = x$$

$$x = 14 \mu\text{L}$$

Tot: 44  $\mu\text{L}$

Inc 2h, x 4

B

After 2h: Add PBS pH 9.5 (+50  $\mu\text{L}$ ) + 5 other equivalents of  
DBCO-NHS: 14  $\mu\text{L}$  sol DBCO-NHS

Inc 2h, x 4

(58  $\mu\text{L}$  tot)

$\rightarrow$  Tot: 108  $\mu\text{L}$

Final: spin down the appendant so that I have all the 100 at the bottom.

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