

## QL13-13

Done

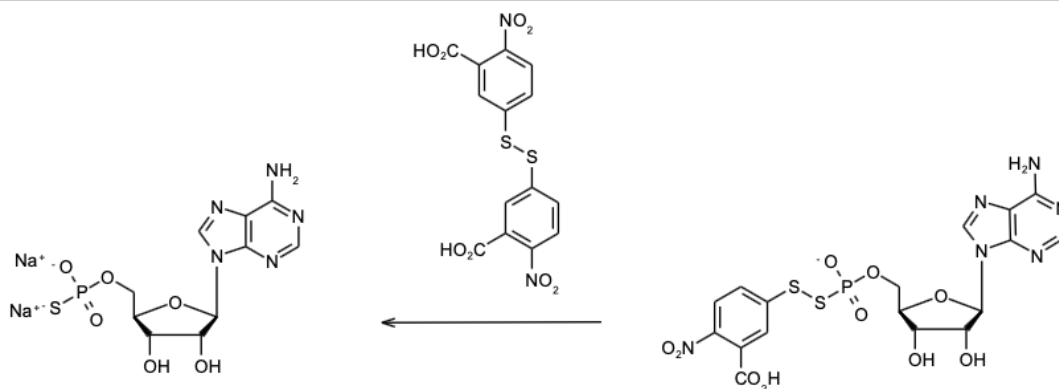
Title: Goal: 

Started on: March 23, 2021

Project: Phosphorothioates

Type: Disulfide exchange

## Scheme



## Tables

|   | Reactant                            | MW      | m | n    | equiv     | d       | volume  | source | purity/ conc./ loading |
|---|-------------------------------------|---------|---|------|-----------|---------|---------|--------|------------------------|
| 1 | molecule 1                          | 407.251 |   | 4.00 | undefined | 1.00    | 4.00 uL |        | 1 mM<br>In PBS         |
| 2 | 5,5'-Dithiobis(2-nitrobenzoic acid) | 396.352 |   | 4.00 | umol      | 1.00e+3 | 36.0 uL |        | 111 mM<br>In PBS       |

|   | Solvent | volume | ratio | conc. | event | temp. | time | heat/cooling source | info |
|---|---------|--------|-------|-------|-------|-------|------|---------------------|------|
| 1 |         |        |       |       | 1     |       |      |                     |      |

|   | Product ID | MW      | m       | n    | equiv     | m obtained | yield | purity/ conc./ loading | Results | Name |
|---|------------|---------|---------|------|-----------|------------|-------|------------------------|---------|------|
| 1 | Draft-1-1  | 559.447 | 2.24 ug | 4.00 | undefined | 1.00       |       |                        |         |      |

## Procedure

Final concentration = 100  $\mu$ M 5'-AMPS

To a solution of molecule 1 (4 uL, 4.00 undefined) in PBS (1 mM, 4.00  $\mu$ L, 1.0 eq.) was added a solution of 5,5'-Dithiobis(2-nitrobenzoic acid) (36.0 uL, 4.00 umol) in PBS buffer (11.1  $\mu$ M (0.1 eq.), 111  $\mu$ M (1 eq.), 1.11 mM (10 eq.), 11.1 mM (100 eq.), 111 mM (1000 equiv.), 36  $\mu$ L, pH 7.4). HPLC were measured after 30 min.

HPLC conditions: 5% - 95% ACN over 20 minutes in total, Rt ~ 2 min for 5'-AMPS, 11.5 min for DTNB

0.1 eq: 100%

1 eq: 100%

10 eq: 96/4

100 eq: 60/40

LCMS confirms product is the exchange one.