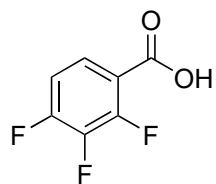


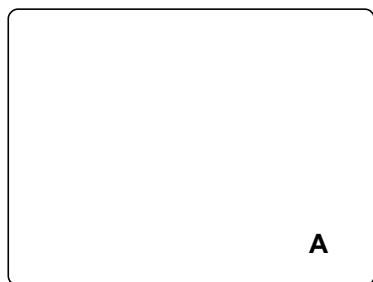
# Novel DNA Gyrase Inhibiting Spiropyrimidinetriones with a Benzisoxazole Scaffold

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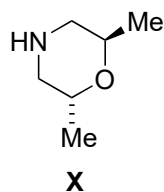
1-4



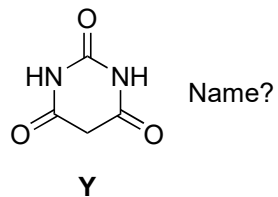
5-7



- 1) **X**, LHMDS, THF, -78 °C
- 2) NaBH<sub>4</sub>, I<sub>2</sub>, EtOH
- 3) TBDPSCl, imidazole
- 4) *s*-BuLi, CH<sub>3</sub>C(=O)N(OMe)Me, MTBE



- 5) acetone-oxime, *t*BuOK then HCl
- 6) MnO<sub>2</sub>
- 7) **Y**, 3:1 AcOH:H<sub>2</sub>O, 120 °C



2) Reactive Intermediate?

4) Explain the regioselectivity of this step

5) Provide a mechanism and name the heterocycle that is formed.

7) Name the reactions and provide a mechanism