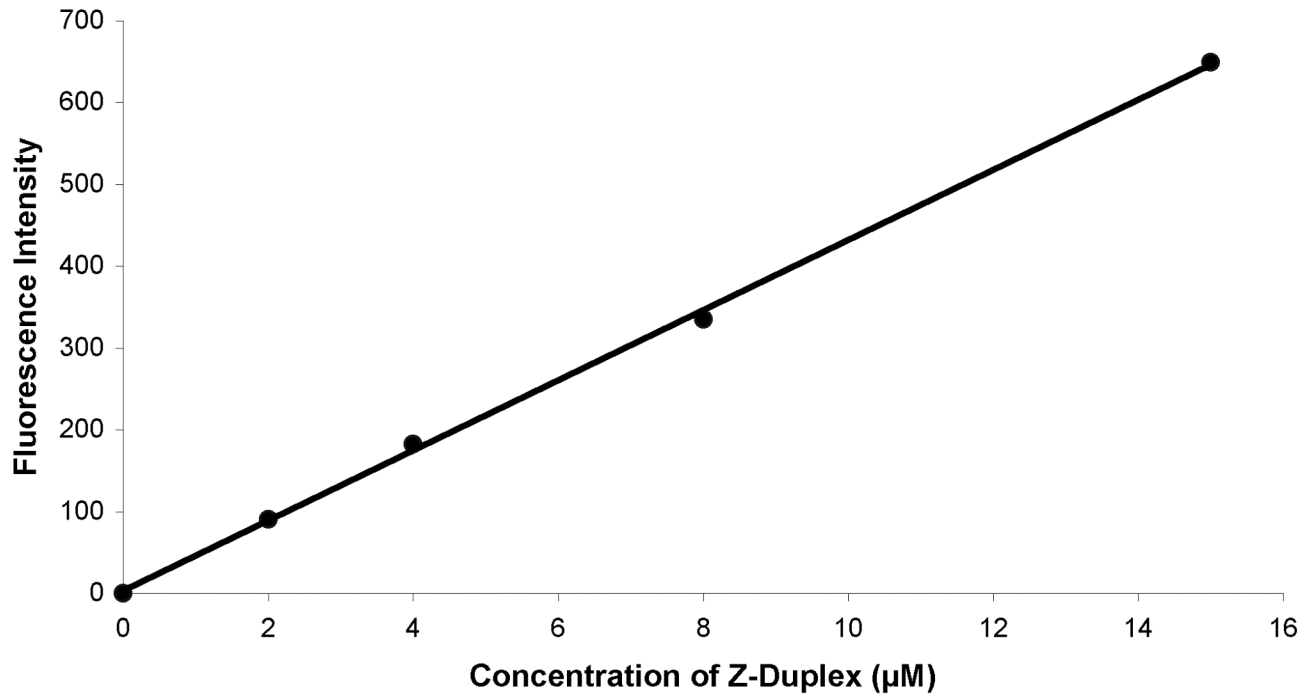


## Supplementary Data

### Fluorescence Calibration Curve with Z-duplex



## Toxicity of Zebularine

Strain	Relevant Genotype	Plasmid	Treatment	Average Cell Density (cfu/mL)	Percent Survival
GM30	<i>dcm<sup>+</sup> mutL<sup>+</sup></i>	Vector	None	$(6.8 \pm 1.0) \times 10^8$	(100%)
GM30	<i>dcm<sup>+</sup> mutL<sup>+</sup></i>	Vector	Zeb	$(1.7 \pm 0.2) \times 10^7$	2.4%
GM30	<i>dcm<sup>+</sup> mutL<sup>+</sup></i>	pDm-dNK	None	$(4.4 \pm 0.6) \times 10^8$	(100%)
GM30	<i>dcm<sup>+</sup> mutL<sup>+</sup></i>	pDm-dNK	Zeb	$(8.5 \pm 1.4) \times 10^6$	1.9%
GM31	<i>dcm mutL<sup>+</sup></i>	Vector	None	$(4.3 \pm 0.5) \times 10^8$	(100%)
GM31	<i>dcm mutL<sup>+</sup></i>	Vector	Zeb	$(5.1 \pm 0.2) \times 10^6$	1.2%
GM31	<i>dcm mutL<sup>+</sup></i>	pDm-dNK	None	$(4.2 \pm 0.7) \times 10^8$	(100%)
GM31	<i>dcm mutL<sup>+</sup></i>	pDm-dNK	Zeb	$(7.6 \pm 0.2) \times 10^5$	0.18%
BH256	<i>dcm mutL</i>	Vector	None	$(4.9 \pm 0.3) \times 10^8$	(100%)
BH256	<i>dcm mutL</i>	Vector	Zeb	$(2.8 \pm 0.1) \times 10^8$	58%
BH256	<i>dcm mutL</i>	pDm-dNK	None	$(4.6 \pm 0.6) \times 10^8$	(100%)
BH256	<i>dcm mutL</i>	pDm-dNK	Zeb	$(2.7 \pm 0.0) \times 10^8$	59%