

# Supplementary Materials

## Safety Profile of Rapamycin Perfluorocarbon Nanoparticles for Preventing Cisplatin-Induced Kidney Injury

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**Table S1.** Systemic disposition kinetics of rapamycin in mice after single IV bolus injection of 0.1 mg/kg of unformulated rapamycin and rapamycin nanoparticle

	Unformulated Rapamycin (N = 7)	Rapamycin Nanoparticles (N = 5)
A (µg/L)	352 ± 86.9	162 ± 35.0 ***
B (µg/L)	130 ± 41.2	37.0 ± 14.6 ***
AUC (µg·h/L)	2021 ± 713	423 ± 117 ***
t <sub>1/2,α</sub> (h)	1.02 ± 0.33	0.34 ± 0.12 ***
t <sub>1/2,β</sub> (h)	7.97 ± 2.51	6.78 ± 1.51
V <sub>c</sub> (L/kg)	0.237 ± 0.071	0.557 ± 0.129 ***
V <sub>ss</sub> (L/kg)	0.448 ± 0.083	2.00 ± 0.678 ***
V <sub>β</sub> (L/kg)	0.633 ± 0.137	2.57 ± 0.817 ***
CL (L/h/kg)	0.060 ± 0.022	0.263 ± 0.063 ***

**Note:** Data are presented as mean ± standard deviation (SD). \*\*\*P < 0.001 compared with the unformulated free rapamycin group using the independent sample *t* test for difference in means between two groups.

**Table S2.** Comparison of rapamycin tissue concentrations obtained at 20 hours post dose and the corresponding tissue-to-blood concentration ratio values between unformulated free rapamycin and rapamycin nanoparticle groups

	Rapamycin Concentration (ng/mL blood or ng/g tissue)		Tissue-to-plasma concentration ratio	
	Unformulated Rapamycin (N = 4)	Rapamycin Nanoparticles (N = 5)	Unformulated Rapamycin (N = 4)	Rapamycin Nanoparticles (N = 5)
<b>Blood</b>	16.2 ± 7.58	4.73 ± 1.58 *	---	---
<b>Liver</b>	14.5 ± 5.29	4.13 ± 0.83 **	1.05 ± 0.69	0.974 ± 0.387
<b>Kidney</b>	26.0 ± 6.35	10.2 ± 1.62 ***	1.73 ± 0.48	2.35 ± 0.73
<b>Lung</b>	83.0 ± 18.2	26.3 ± 3.93 ***	5.52 ± 1.29	6.52 ± 3.66
<b>Heart</b>	47.7 ± 13.3	20.9 ± 3.75 **	3.20 ± 1.14	4.79 ± 1.46
<b>Brain</b>	3.98 ± 6.02	0.149 ± 0.036	0.35 ± 0.58	0.038 ± 0.025
<b>Intestine</b>	64.4 ± 88.8	5.04 ± 1.53	5.45 ± 8.64	1.37 ± 1.14
<b>Stomach</b>	27.3 ± 11.0	8.02 ± 2.02 **	1.95 ± 1.29	2.03 ± 1.26
<b>Spleen</b>	39.8 ± 22.4	12.2 ± 3.90 *	2.81 ± 2.32	2.74 ± 0.93
<b>Bladder</b>	55.6 ± 20.6	11.7 ± 8.54 **	3.72 ± 1.56	3.56 ± 4.51

**Note:** Data are presented as mean ± standard deviation (SD). \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.01 compared with the unformulated rapamycin group using the independent sample *t* test for difference in means between two groups.