

# Optimization of Docetaxel Loading Conditions in Liposomes: proposing potential products for metastatic breast carcinoma chemotherapy

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## Supplementary Table S2B

Characteristics of DTX loaded liposomal formulations prepared based on different methods.

No	Preparation Method	Formulations -Hydration Buffer	Z Average <sup>c</sup> (nm)	PDI <sup>d</sup>	Zeta potential (mV)	EE <sup>e</sup> (%)
1	Passive Loading	HSPC/mPEG 2000-DSPE/ Chol, (8.5/0.5/1) -Mannitol 290 mM, Acetic acid 10mM	125	0.087	-10.3	20
2	Passive Loading	HSPC/mPEG2000-DSPE/DPPG/Chol (85/5/5/10) -Mannitol 290 mM, Acetic acid 10mM	139.0	0.156	-10.9	18
3	Passive Loading	HSPC/mPEG2000-DSPE/DSPG/Chol (85/5/5/10) -Mannitol 290 mM, Acetic acid 10mM	108.4	0.178	-13.7	26
4	Remote Loading	HSPC/ mPEG 2000-DSPE/Chol, (8.5/0.5/1) -Sucrose 10%, HEPES 10 mM	110	0.121	-9.32	23
5	Remote Loading	HSPC/ mPEG 2000-DSPE/ Chol, (8.5/0.5/1) -mannitol 290 mM, succinate sodium 10 mM	109.5	0.157	-10.6	16.6
6	Remote Loading	HSPC/ mPEG 2000-DSPE/ Chol, (8.5/0.5/1) -mannitol 290 mM, acetic acid 10 mM	113.5	0.152	-8.52	67
7	Remote Loading	HSPC/ mPEG 2000-DSPE/ Chol, (7.5/0.5/2) - mannitol 290 mM, acetic acid 10 mM	109.6±8	0.165	-10.8	20
8	Remote Loading	HSPC/mPEG2000-DSPE/DSPG:Chol, (8/0.5/0.5/1) - mannitol 290 mM, acetic acid 10 mM	113.1±5	0.145	-12.1	71.8
9	Remote Loading	HSPC/mPEG 2000-DSPE/DPPG/Chol, (8/0.5/0.5/1) - mannitol 290 mM, acetic acid 10 mM	118.1±10	0.198	-13.8	40.6
10	Remote	HSPC/ mPEG 2000-DSPE/Chol, (6/0.5/3.5)-	- <sup>f</sup>	-	-	10

	Loading	mannitol 290 mM, acetic acid 10 mM				
<b>11</b>	Remote Loading	HSPC/mPEG2000-DSPE/DSPG/Chol, (5.5/0.5/0.5/3.5) -mannitol 290 mM, acetic acid 10 mM	-	-	-	10
<b>12</b>	Remote Loading	HSPC/mPEG 2000-DSPE/DPPG/Chol, (5.5/0.5/0.5/3.5) -mannitol 290 mM, acetic acid 10 mM	-	-	-	10

<sup>a</sup> Hydration buffer

<sup>b</sup> Dialysis buffer

<sup>c</sup> Values are presented from triplicate measurements of each formulation

<sup>d</sup> Poly dispersity index

<sup>e</sup> Encapsulation efficiency

<sup>f</sup> Values were not measured because of low EE