SI information

Enhancement of Docetaxel Solubility using Binary and Ternary Solid Dispersion Systems

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SI .1 Kinetic solubility profile of DTX formulations

Figure 1. Kinetic solubility profiles of the DTX and DTX formulations. Except DS 1:10 and (DH)S 1:10 all the other formulations are plotted on primary Y axis.

SI.2 Statistical analysis of the kinetic solubility values

ANOVA

		Sum of Squares	df	Mean Square	F	Significance
T20	Between Groups	80020.73	5	16004.15	555.83	.00
	Within Groups	345.52	12	28.79		
	Total	80366.24	17			
T45	Between Groups	204159.1	5	40831.82	2220.98	.00
	Within Groups	220.62	12	18.38		
	Total	204379.7	17			

Comparisons using Tukey HSD test.

Multiple Comparisons- T 20

(I) Group (J) Group		Mean Difference (I - J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Tukey HSD (DH)S 1:10	(DP)L 1:10	176.51	4.38	.00	161.79	191.22
	Cry DTX	183.63	4.38	.00	168.91	198.34
	DH	186.68	4.38	.00	171.96	201.40
	DP 1:10	179.25	4.38	.00	164.53	193.97
	DS 1:10	127.75	4.38	.00	113.04	142.47
	(DP)L 1:10 (DH)S 1:10	-176.51	4.38	.00	-191.22	-161.79
	Cry DTX	7.12	4.38	.60	-7.60	21.84
	DH	10.17	4.38	.26	-4.54	24.89
	DP 1:10	2.74	4.38	.99	-11.97	17.46
	DS 1:10	-48.75	4.38	.00	-63.47	-34.04
	Cry DTX (DH)S 1:10	-183.63	4.38	.00	-198.34	-168.91
	(DP)L 1:10	-7.12	4.38	.60	-21.84	7.60
	DH	3.05	4.38	.98	-11.66	17.77
	DP 1:10	-4.38	4.38	.91	-19.09	10.34
	DS 1:10	-55.87	4.38	.00	-70.59	-41.16
	DH (DH)S 1:10	-186.68	4.38	.00	-201.40	-171.96
	(DP)L 1:10	-10.17	4.38	.26	-24.89	4.54
	Cry DTX	-3.05	4.38	.98	-17.77	11.66
	DP 1:10	-7.43	4.38	.56	-22.15	7.29
	DS 1:10	-58.93	4.38	.00	-73.64	-44.21
DP 1:10	(DH)S 1:10	-179.25	4.38	.00	-193.97	-164.53
	(DP)L 1:10	-2.74	4.38	.99	-17.46	11.97
	Cry DTX	4.38	4.38	.91	-10.34	19.09
	DH	7.43	4.38	.56	-7.29	22.15
	DS 1:10	-51.50	4.38	.00	-66.21	-36.78
DS 1:10	(DH)S 1:10	-127.75	4.38	.00	-142.47	-113.04
	(DP)L 1:10	48.75	4.38	.00	34.04	63.47
	Cry DTX	55.87	4.38	.00	41.16	70.59
	DH	58.93	4.38	.00	44.21	73.64
	DP 1:10	51.50	4.38	.00	36.78	66.21

Multiple Comparisons-T45

	(I) Group	(J) Group	Mean Difference (I - J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	(DH)S 1:10	(DP)L 1:10	223.72	3.50	.00	211.96	235.48
		Cry DTX	230.42	3.50	.00	218.66	242.18
		DH	233.92	3.50	.00	222.16	245.68
		DP 1:10	228.67	3.50	.00	216.91	240.43
		DS 1:10	6.78	3.50	.43	-4.98	18.54
	(DP)L 1:10	(DH)S 1:10	-223.72	3.50	.00	-235.48	-211.96
		Cry DTX	6.70	3.50	.44	-5.06	18.46
		DH	10.20	3.50	.10	-1.56	21.96
		DP 1:10	4.95	3.50	.72	-6.81	16.71
		DS 1:10	-216.94	3.50	.00	-228.70	-205.18
	Cry DTX	(DH)S 1:10	-230.42	3.50	.00	-242.18	-218.66
		(DP)L 1:10	-6.70	3.50	.44	-18.46	5.06
		DH	3.50	3.50	.91	-8.26	15.26
		DP 1:10	-1.75	3.50	1.00	-13.51	10.01
		DS 1:10	-223.64	3.50	.00	-235.40	-211.88
	DH	(DH)S 1:10	-233.92	3.50	.00	-245.68	-222.16
		(DP)L 1:10	-10.20	3.50	.10	-21.96	1.56
		Cry DTX	-3.50	3.50	.91	-15.26	8.26
		DP 1:10	-5.25	3.50	.67	-17.01	6.51
		DS 1:10	-227.14	3.50	.00	-238.90	-215.38
	DP 1:10	(DH)S 1:10	-228.67	3.50	.00	-240.43	-216.91
		(DP)L 1:10	-4.95	3.50	.72	-16.71	6.81
		Cry DTX	1.75	3.50	1.00	-10.01	13.51
		DH	5.25	3.50	.67	-6.51	17.01
		DS 1:10	-221.89	3.50	.00	-233.65	-210.13
		(DH)S 1:10	-6.78	3.50	.43	-18.54	4.98
		(DP)L 1:10	216.94	3.50	.00	205.18	228.70
		Cry DTX	223.64	3.50	.00	211.88	235.40
		DH	227.14	3.50	.00	215.38	238.90
		DP 1:10	221.89	3.50	.00	210.13	233.65