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Hybrid Lipid Nanoformulations for Hepatoma Therapy: Sorafenib Loaded Nanoliposomes—A Preliminary Study

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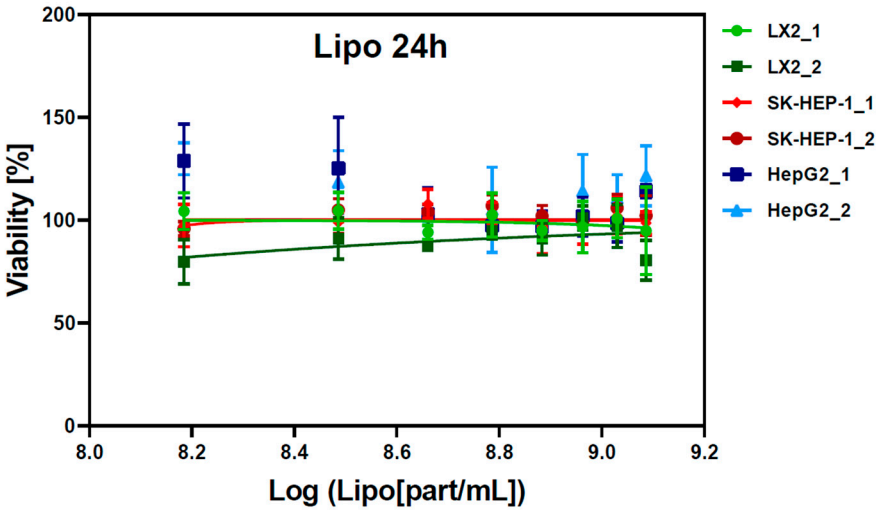

Figure S1. Evaluation of IC_{50} doses of Lipo treatment at 24 h. The experiments were performed on duplicate for each cell line.

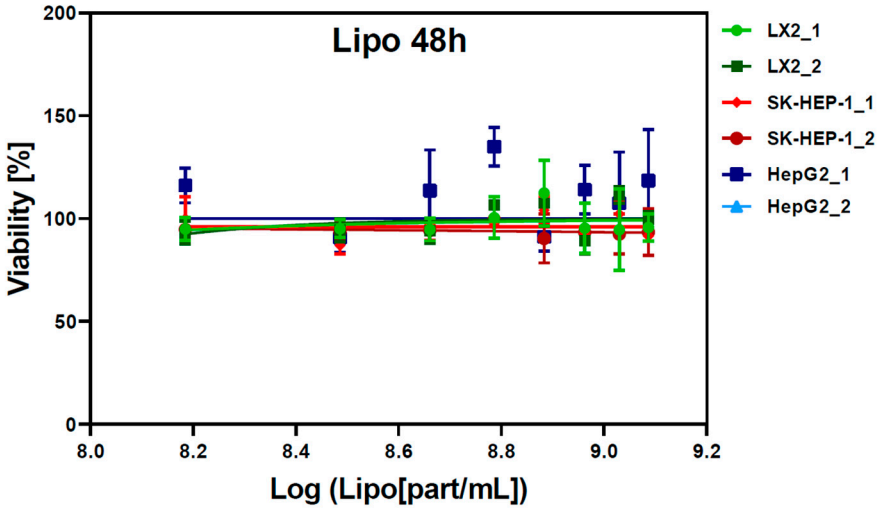

Figure S2. Evaluation of IC_{50} doses of Lipo at 48 h. The experiments were performed on duplicate for each cell line.

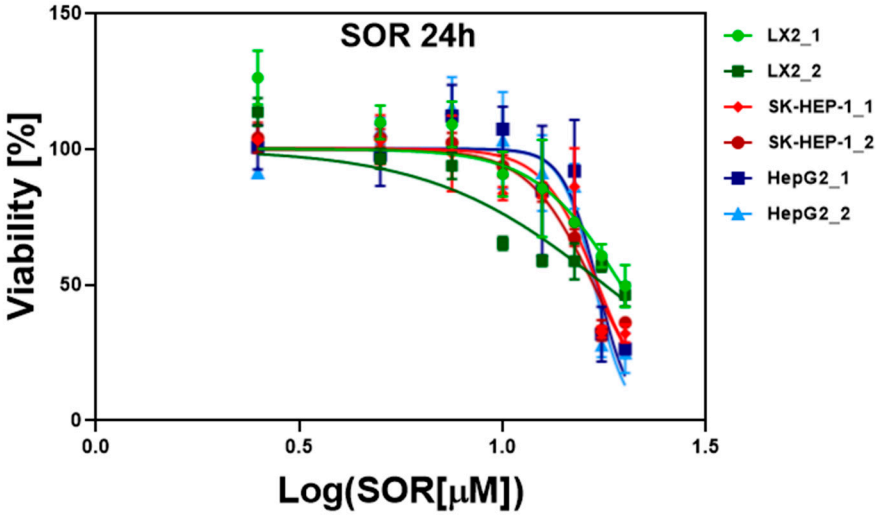

Figure S3. Evaluation of IC_{50} doses of SOR treatment at 24 h. The experiments were performed on duplicate for each cell line.

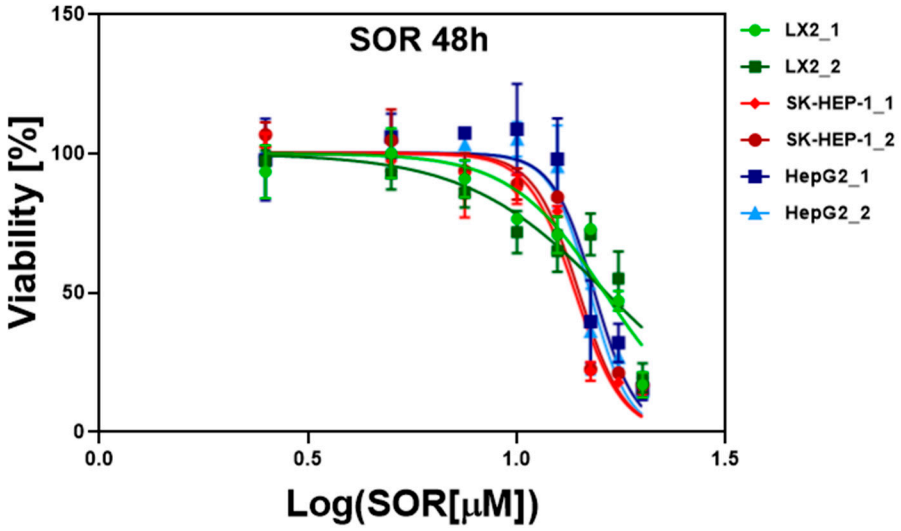

Figure S4. Evaluation of IC_{50} doses of SOR treatment at 48 h. The experiments were performed on duplicate for each cell line.

Table S1. Statistical analysis in the case of blank liposomes treatments effect on 24 and 48 h.

Cell line	1.22E+09 part/ml	1.07E+09 part/ml	9.17E+08 part/ml	7.64E+08 part/ml	6.11E+08 part/ml	4.58E+08 part/ml	3.06E+08 part/ml	1.53E+08 part/ml
Duplicate 1 24h								
LX2	0.769328	0.947867	0.817012	0.678590	0.849069	0.624289	0.723553	0.735599
SKHEP	0.772832	0.730028	0.857338	0.107944	0.458241	0.179640	0.795779	0.702046
HEPG2	0.045177	0.848654	0.810619	0.648596	0.588334	0.761715	0.167473	0.063622
Duplicate 2 24h								
LX2	0.087038	0.765906	0.898290	0.308474	0.419783	0.126129	0.365206	0.088683
SKHEP	0.757732	0.328753	0.715451	0.695232	0.219940	0.411216	0.367465	0.375057
HEPG2	0.172483	0.422020	0.380560	0.833452	0.755598	0.860321	0.235949	0.050281
Duplicate 1 48h								
LX2	0.438823	0.677189	0.584409	0.268253	0.946938	0.310058	0.293018	0.321055
SKHEP	0.024743 ↑*	0.621539	0.043293 ↑*	0.417953	0.272675	0.094648	0.018794 ↑*	0.990909
HEPG2	0.256268	0.294356	0.710103	0.971164	0.009092 ↑**	0.947129	0.564198	0.023731 ↑*
Duplicate 2 48h								
LX2	0.087038	0.765906	0.898290	0.308474	0.419783	0.126129	0.365206	0.088683
SKHEP	0.388417	0.276780	0.054595	0.244687	0.852371	0.053357	0.111586	0.048279 ↑*
HEPG2	0.172483	0.422020	0.380560	0.833452	0.755598	0.860321	0.235949	0.050281

↑ - increased viability; ↓ - decreased viability; P-value <0.05 (*), P-value <0.01 (**) and P-value <0.001 (***).
Discovery determined using the Two-stage linear step-up procedure of Benjamini, Krieger and Yekutieli, with Q = 1%.
Each row was analyzed individually, without assuming a consistent SD. Number of t tests: 3.

Table S2. Statistical analysis in the case of Sorafenib treatments effect on 24 and 48 h.

Cell line	20 μM	17.5 μM	15 μM	12.5 μM	10 μM	7.5 μM	5 μM	2.5 μM
				Duplicate 1 24h				
LX2	0.001208 ↓***	0.001287 ↓***	0.003413 ↓***	0.263599	0.218253	0.229341	0.151472	0.021292 ↓*
SKHEP	0.000308 ↓***	0.000279 ↓***	0.233513	0.050174	0.044889 ↓*	0.874839	0.675029	0.580075
HEPG2	0.000591 ↓***	0.001958 ↓***	0.570509	0.381779	0.452142	0.288447	0.827872	0.943004
				Duplicate 2 24h				
LX2	0.000302 ↓***	0.000493 ↓***	0.001641 ↓**	0.000520 ↓**	0.001062 ↓**	0.263530	0.459452	0.048789 ↓*
SKHEP	0.000005 ↓***	0.000017 ↓***	0.000171 ↓***	0.003403 ↓**	0.089980	0.423007	0.171031	0.309791
HEPG2	0.000413 ↓***	0.000283 ↓***	0.130263	0.416992	0.799905	0.159974	0.339079	0.193787
				Duplicate 1 48h				
LX2	0.000064 ↓***	0.000289 ↓***	0.002609 ↓**	0.006094 ↓**	0.004276 ↓**	0.176328	0.991945	0.390000
SKHEP	0.000017 ↓***	0.000021 ↓***	0.000038 ↓***	0.004603 ↓**	0.048843 ↓*	0.057974	0.472784	0.634548
HEPG2	0.000108↓***	0.000454↓***	0.003706↓**	0.840712	0.466975	0.221270	0.437520	0.830644
				Duplicate 2 48h				
LX2	0.000302 ↓***	0.000493 ↓***	0.001641 ↓**	0.000520 ↓***	0.001062 ↓**	0.263530	0.459452	0.048789
SKHEP	0.000005 ↓***	0.000017 ↓***	0.000171 ↓***	0.003403 ↓**	0.089980	0.423007	0.171031	0.309791
HEPG2	0.000413 ↓***	0.000283 ↓***	0.130263	0.416992	0.799905	0.159974	0.339079	0.193787

↑ - increased viability; ↓ - decreased viability; P-value <0.05 (*), P-value <0.01 (**) and P-value <0.001 (***).
Discovery determined using the Two-stage linear step-up procedure of Benjamini, Krieger and Yekutieli, with Q = 1%.
Each row was analyzed individually, without assuming a consistent SD. Number of t tests: 3.

Table S3. Statistical analysis in the case of Lipo_SOR treatments effect on 24 and 48 h.

Cell line	15.08 µM	13.17 µM	11.28 µM	9.4 µM	7.51 µM	5.64 µM	3.76 µM	1.88 µM
Duplicate 1 24h								
LX2	0.004120 ↓***	0.000160 ↓***	0.672048	0.612151	0.984074	0.714449	0.000332 ↑***	0.000898 ↑***
SKHEP	0.000004 ↓***	0.000006 ↓***	0.002297 ↓**	0.018093 ↓*	0.093159	0.038076 ↓*	0.903695	0.011109 ↑*
HEPG2	0.005756 ↓**	0.003551 ↓**	0.145049	0.127007	0.076598	0.057279	0.901877	0.361602
Duplicate 2 24h								
LX2	0.007062 ↓**	0.001828 ↓**	0.562223	0.182374	0.177440	0.610755	0.003986 ↑**	0.034356 ↑*
SKHEP	0.000048 ↓***	0.000018 ↓***	0.001027 ↓**	0.000934 ↓***	0.021367 ↓*	0.002733 ↓**	0.554501	0.066765
HEPG2	0.002364 ↓**	0.000267 ↓***	0.146928	0.010949 ↓*	0.348438	0.101571	0.026474↑*	0.021574 ↑*
Duplicate 1 48h								
LX2	0.001312 ↓***	0.020901 ↓*	0.010244 ↓*	0.112281	0.146689	0.874352	0.008119 ↑**	0.000603 ↑***
SKHEP	0.000036 ↓***	0.000048 ↓***	0.000050 ↓***	0.000347↓***	0.000917 ↓***	0.408659	0.464314	0.393643
HEPG2	0.000127 ↓***	0.000143 ↓***	0.000176 ↓***	0.006473 ↓**	0.036219 ↓*	0.685431	0.704974	0.930465
Duplicate 2 48h								
LX2	0.013747 ↓*	0.062985	0.295600	0.428195	0.835431	0.569662	0.505756	0.012286 ↑*
SKHEP	0.000028 ↓***	0.000015 ↓***	0.000010 ↓***	0.000220 ↓***	0.000260 ↓***	0.548100	0.167830	0.342118
HEPG2	0.000096 ↓***	0.000087 ↓***	0.000082 ↓***	0.018249 ↓*	0.097682	0.912583	0.502474	0.586861

↑ - increased viability; ↓ - decreased viability; P-value <0.05 (*), P-value <0.01 (**) and P-value <0.001 (***).
Discovery determined using the Two-stage linear step-up procedure of Benjamini, Krieger and Yekutieli, with Q = 1%. Each row was analyzed individually, without assuming a consistent SD. Number of t tests: 3.