

Maximizing liposome tumor delivery by hybridizing with tumor-derived extracellular vesicles

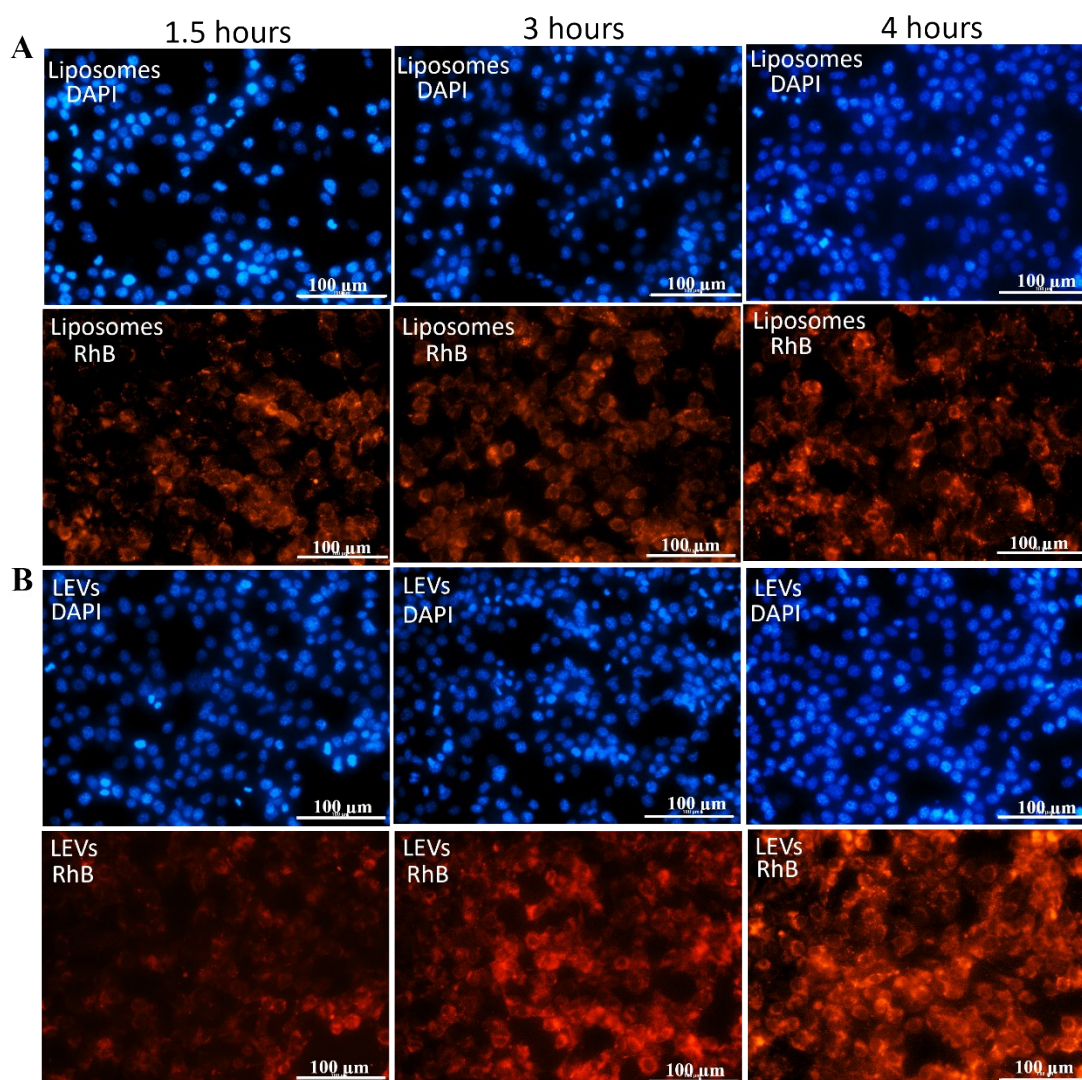
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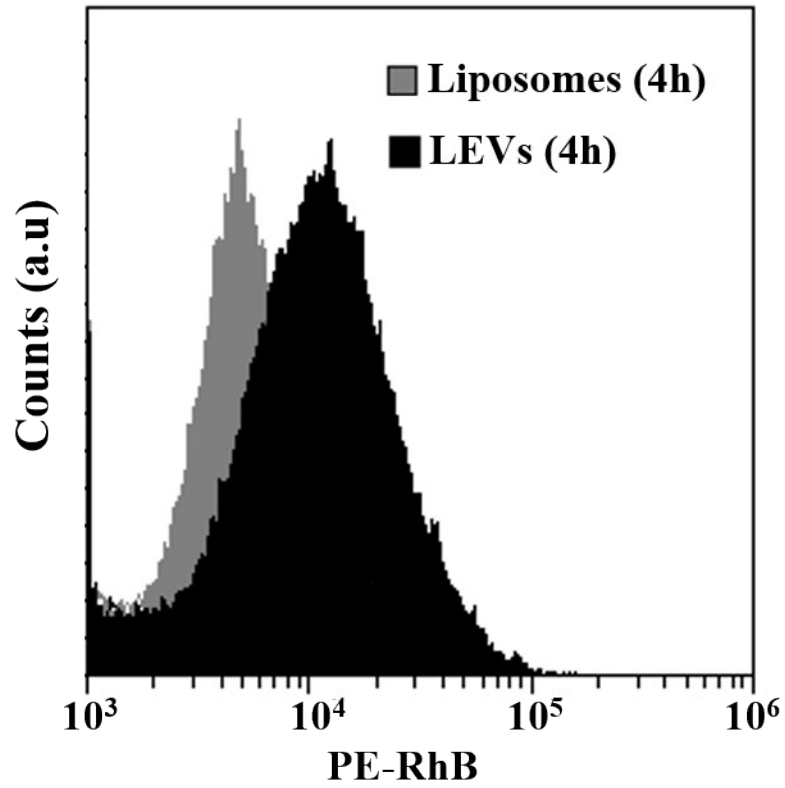
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Sample	Angle of Detection						Zeta Potential (mV)	Particle concentration (number/mL)
	17°		90°		173°			
	Size (d.nm)	PDI	Size (d.nm)	PDI	Size (d.nm)	PDI		
EVs	102±4	1	23±05	0.22	10-150	0.39	-15±0.3	1.588 x 10 <sup>8</sup>
LEVs	319±5	0.08	109±4	0.14	140±5	0.145	-36±0.6	2.73 x 10 <sup>11</sup>
Liposomes	134±6	0.26	123±8	0.13	106±1	0.105	-31±0.8	8.932 x 10 <sup>10</sup>

**Figure S1.** Physiochemical characterization of extracellular vesicles (EVs) derived from mouse breast cancer 4T1 cell using multi-angle dynamic light scattering at three different angles.



**Figure S2.** Cellular internalization studies: Fluorescence images showing cellular internalization of RhB labelled liposomes (A) and LEVs (B) after 1.5 h, 3 h, and 4 h incubation. Results showed minimal internalizations of control liposomes and maximum internalization of LEVs into 4T1 cells.



**Figure S3.** Flow cytometry graphs of cellular internalization by mouse breast cancer (4T1) cells after incubation with Rh-B labeled liposome and LEVs (100 ug/mL feed) for 4 h time. Data represent mean  $\pm$  SD, n = 3.