

*Supplementary Information*

**Detection of Serum EphA2-EVs for Pancreatic Cancer Diagnosis by Light  
Initiated Chemiluminescent Assay**

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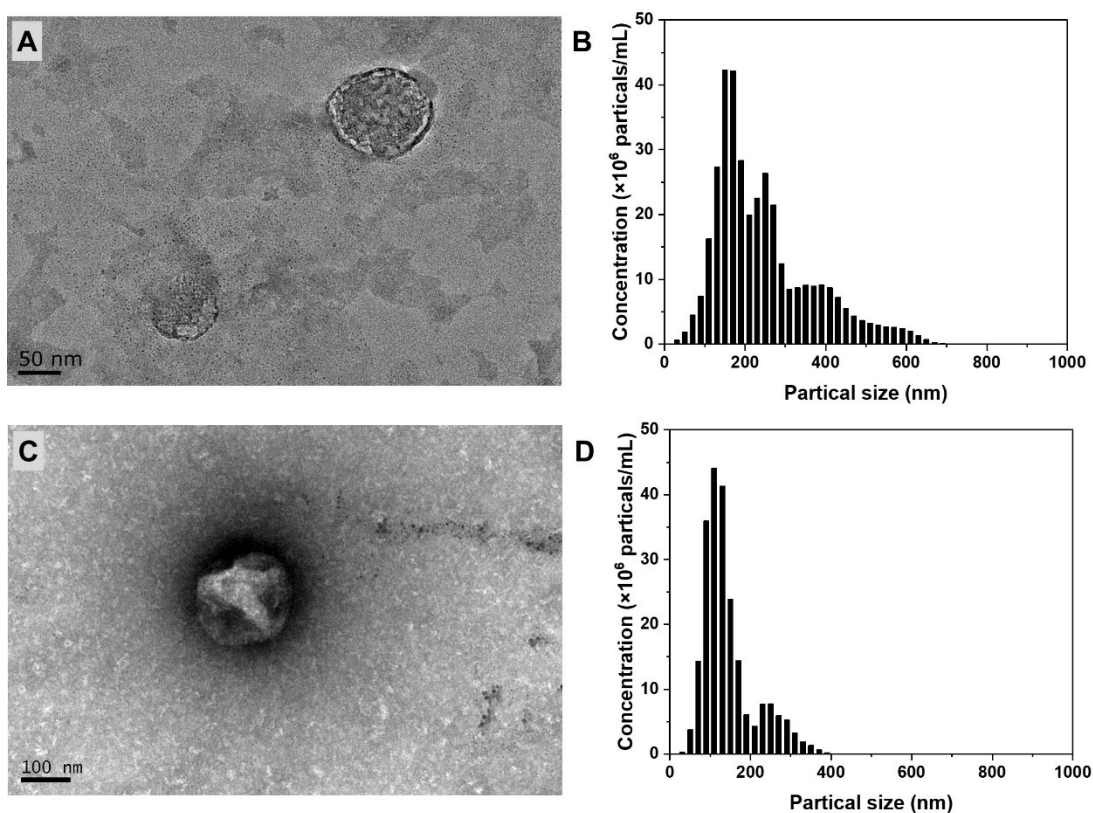
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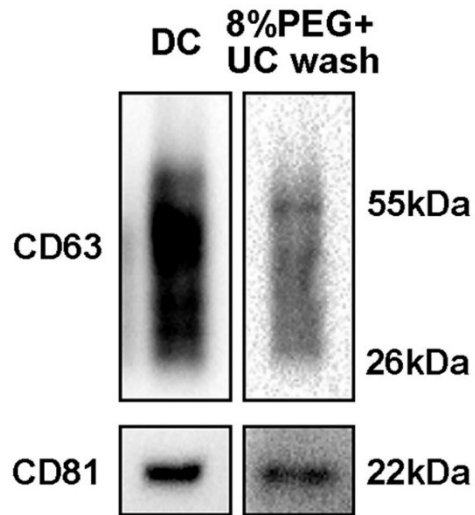
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**Table. S1** Comparison about the EV concentrations, size distribution, protein concentration and the ratio of protein concentration to particle number concentration of EVs isolated from PANC1, MiaPaCa2, BxPC3 and HPNE by differential ultra-centrifugation.

	Particles concentration (particals/mL)	Size distribution (nm)	Protein concentration ( $\mu\text{g}/\mu\text{L}$ )	particle number / protein (particals/ $\mu\text{g}$ )
PANC1	$1.33\pm 0.13\times 10^{11}$	$137\pm 44$	$0.363\pm 0.034$	$3.69\pm 0.38\times 10^8$
MiaPaCa2	$2.78\pm 0.44\times 10^{11}$	$143\pm 56$	$0.816\pm 0.052$	$3.41\pm 0.32\times 10^8$
BxPC3	$5.30\pm 0.37\times 10^{11}$	$165\pm 78$	$0.844\pm 0.087$	$6.31\pm 0.21\times 10^8$
HPNE	$2.44\pm 0.42\times 10^{11}$	$132\pm 50$	$1.15\pm 0.21$	$2.12\pm 0.083\times 10^8$



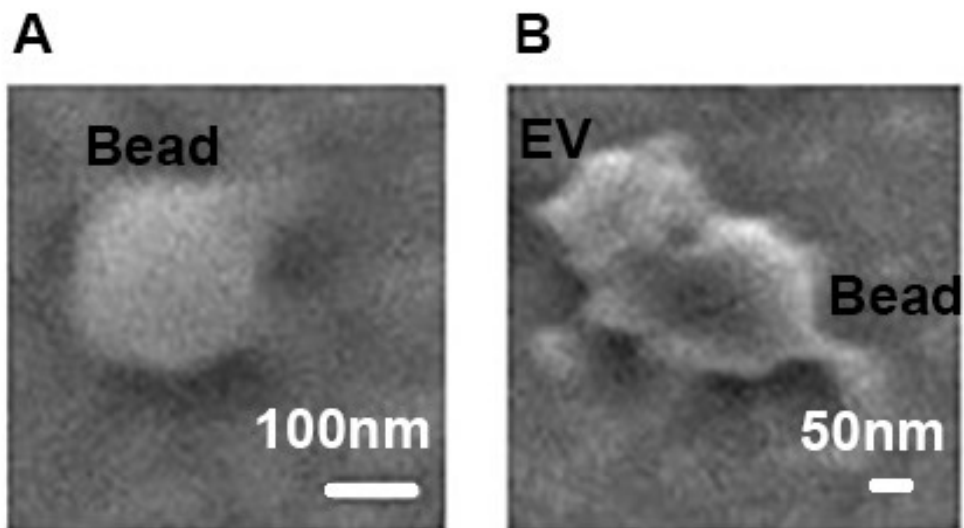
**Fig. S1.** Comparison of different EVs extraction methods, (A,B) TEM image and NTA of the EVs purified from PANC1 cell culture by exosomes isolation kits, (C,D) TEM image and NTA of the EVs purified from PANC1 cell culture by PEG-based vesicles enrichment.



**Fig. S2.** Western Blot was used to compare the protein concentration of EVs purified from PANC1 cell culture by differential ultra-centrifugation method and PEG-based vesicles enrichment.



**Fig. S3.** Xenograft model in nude mice after 60 days of PANC1 cell injection: (A) control group and (B) tumor group.



**Fig. S4.** (A) SEM image of the bead in this LICA method, (B) SEM image of particles after EVs capture.

**Table. S2** Comparison of the LICA method and ELISA

	LICA	ELISA
Incubation time	3.5 h	>4h + plates coating time+sample purification
Washes	No, less manual steps	Yes, more influence of artificial factors
Sample volume	5 $\mu$ L	>100 $\mu$ L