

Supporting Information

Based on Exo I signal amplification of DNA hydrogel film combined with capillary self-driven for EpCAM detection

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Table S1. Comparisons between this work and Currently Used Techniques for EpCAM Detection.

Methods	Target	Technique	LODs	Linear range	Ref.
CD63 aptamer	Exosome	Electrochemical	1 particles/mL	10 to 2 - 10 ¹⁰ particles/mL	1
ECL nanoprobe	Exosome	Electrogenerated chemiluminescence	125 particles/μL	5×10 ² - 5×10 ⁶ particles/μL	2
Aptasensor	Exosome	Electrochemical	0.5 particles/ μL	2.5×10 ³ - 2.5×10 ⁶ particles/mL	3
EpCAM-targeting peptides	EpCAM protein	Fluorescence	-	-	4
Microfluidic-SERS	Exosome	SERS	2 particles/μL	2.2×10 ² - 2.2×10 ¹¹ particles/mL	5
Electrochemical cytosensor	EpCAM protein	Electrochemical	10 particles/mL	30 - 1×10 ⁶ particles/mL	6
Electrochemical immunosensor	EpCAM protein	Electrochemical	0.0065 ng/mL	0.01 ng/mL - 60 ng/mL	7
Encoded internal reference nanoparticles (NPs)	Tumor cells	SERS	0.53 pg/mL	1.24 - 75.48 pg/mL	8
Immunomagnetic nanoparticles	Tumor cells	Colorimetry	0.12 μM	0.1 - 10 μM	9
Graphene quantum dots and molybdenum disulfide	Tumor cells	Colorimetry	0.450 μM	3 - 54 nM	10
DNA hydrogel film	EpCAM protein	Flow distance	0.018 ng/mL	0.05 - 100 ng/mL	This Work

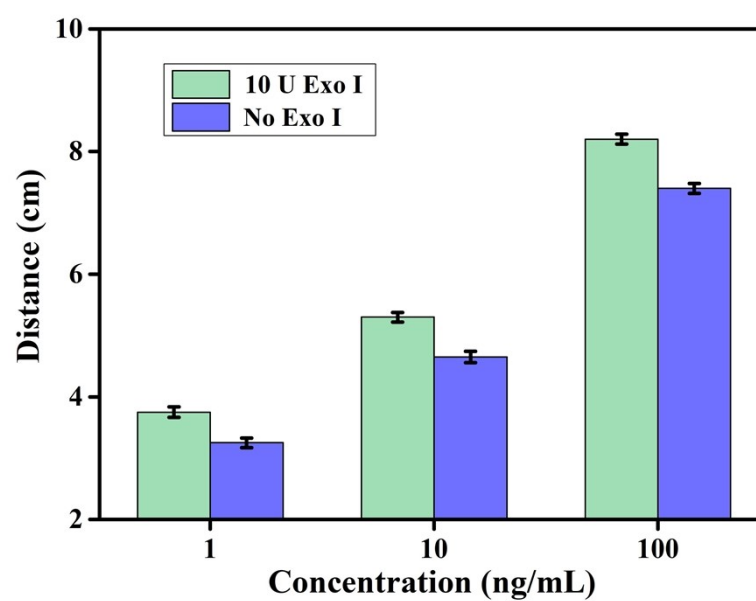


Figure S1. Comparison of results with and without Exo I in the reaction system

Reference

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