

Supplementary information for:

Peroxidase-mimicking Prussian Blue Nanoparticles versus HRP for High Colorimetric Detection of miRNA-141 in Competitive RNA-RNA Systems

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Table S1: Nucleic acids employed in the present work.

Nucleic acid	Sequence (5'–3')
Target microRNA–141	UAA CAC UGU CUG GUA AAG AUG G
Probe (NH ₂ -P)	NH ₂ -(CH ₂) ₆ -AAACCA TCT TTA CCA GAC AGT GTT A
Biotin-microRNA–141	Biotin-UAA CAC UGU CUG GUA AAG AUG G
microRNA–21 (non-complementary target)	UAGCUUAUCAGACUGAUGUUGA
microRNA–125a (non-complementary target)	UCCUGAGACCCUUUAACUGUGA
microRNA–146a (non-complementary target)	UGAGAACUGAAUCCAUGGGUU
microRNA–155 (non-complementary target)	UUAAUGC UAAUCGUGAUAGGGUU
microRNA–222 (non-complementary target)	AGCUACAUCUGGCUACUGGGUCUC

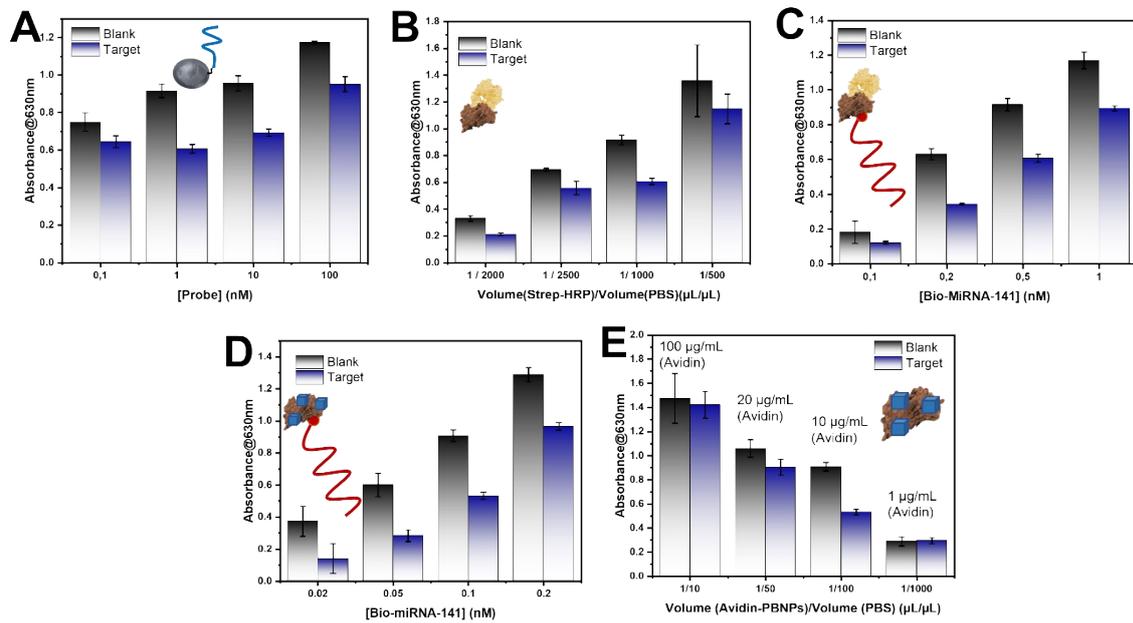


Figure S1: Optimization of parameters of both developed biosensors-based competitive systems. (A) Probe concentration, (B) Volume of Strep-HRP, (C) Bio-MiRNA-141 concentration for HRP based biosensor, (D) Bio-MiRNA-141 concentration for PBNPs based biosensor and (E) Volume of Avidin-PBNPs conjugate. Three parallel experiments yielded error bars.

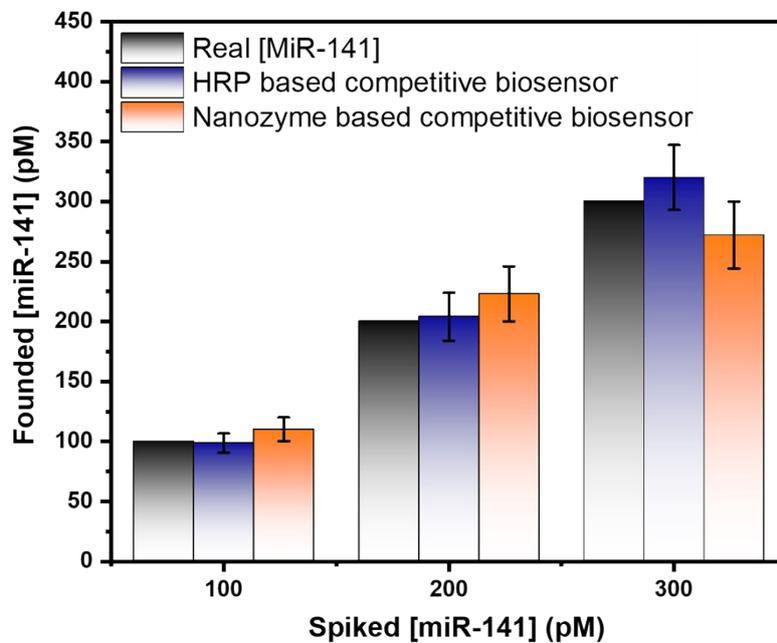


Figure S2: MiRNA-141 detection in artificial human serum by both developed biosensors (n=3).