

SUPPORTING INFORMATION

In situ synthesis of fluorescent polydopamine nanoparticles coupled with enzyme-controlled dissolution of MnO₂ nanoflakes for sensitive immunoassay of cancer biomarkers

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S1. Characterization of AO_X -AuNP- Ab_2

Fig. S1-A gives typical TEM image of the newly prepared gold nanoparticles, which exhibited spherical morphology with a mean lateral dimension of approximately 16 nm. UV-vis absorption spectrum was also used to characterize the successful formation of AO_X -AuNP- Ab_2 conjugates. As seen from curve 'a' in Fig. S1-B, pure gold colloids presented a characteristic absorption peak at 518 nm. The characteristic plasmon absorption peak shifted from 518 to 522 nm after polyclonal anti-AFP antibody and AO_X were labeled onto the nanoparticles (curve 'b') due to the change in the surface charge of gold nanoparticles. The results revealed the successful formation of bioconjugates.

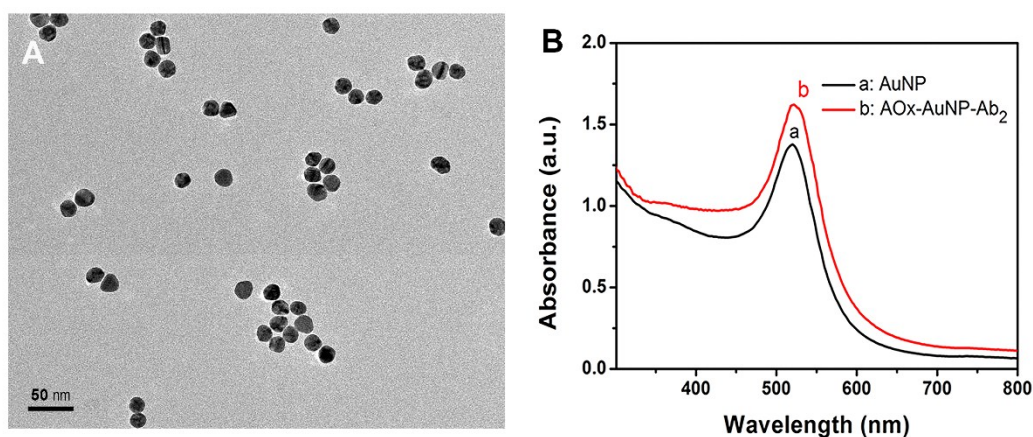


Fig. S1. (A) TEM image of gold colloids and (B) UV-vis adsorption spectra of (a) AuNP, (b) AO_X -AuNP- Ab_2 .