Supplementary material

High specific determination of gentamicin by induced collapse of Au-lipid capsule

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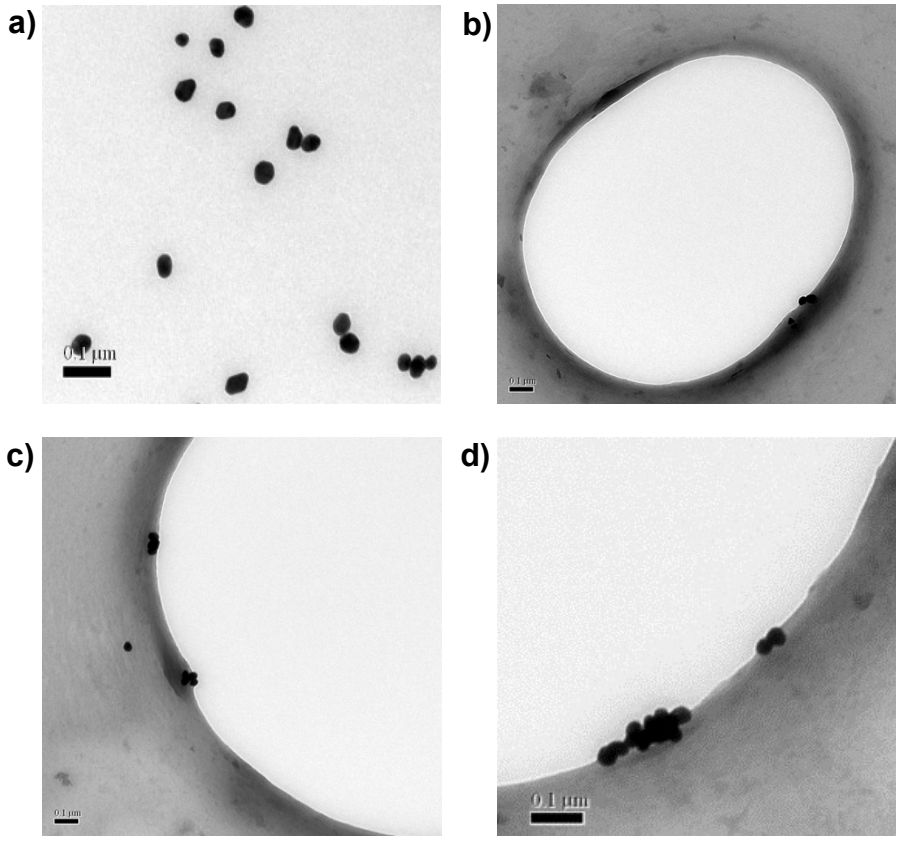

Fig. S1. The TEM images of AuNPs (a), liposome (b) and Au-lipid capsule (c) and (d).

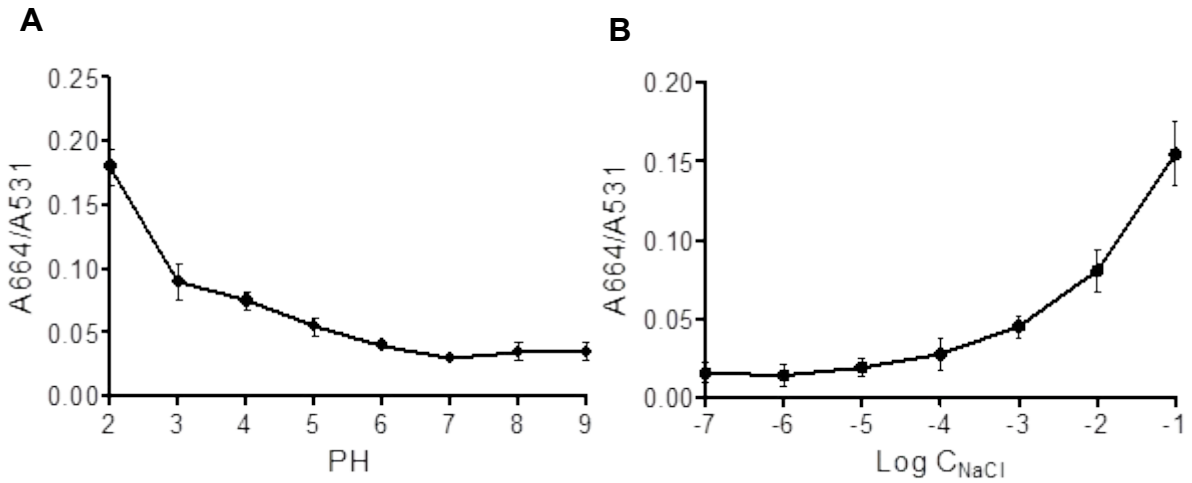

Fig. S2. Absorption ratio A664/A531 of Au-lipid capsule under varied pH conditions (A) or with different NaCl concentration (B). All experiments were performed in triplicate. Error bars represent standard deviation.

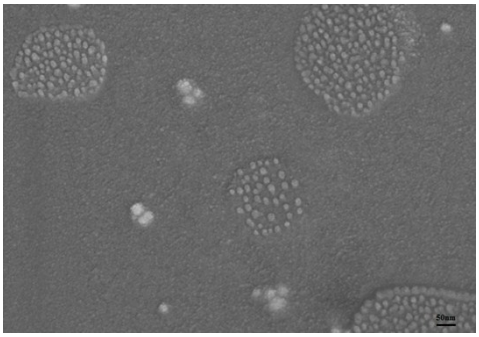

Fig. S3. The SEM image of Au-lipid capsules.

Table S1 Comparison with other methods for gentamicin detection.

Methods/materials	Analytical ranges/LODs	Comments	References
HPLC	0.1-1 mg kg^{-1}/0.05 mg kg^{-1}	Detection time:18 min, specific electrochemical detector	(Posyniak et al. 2001)
LC-MS	6-600 ng mL^{-1}/12.8 ng mL^{-1}	Detection time:22 min, complex, expensive instrument	(Turnipseed et al. 2009)
Enzyme-linked immunoassay	25–200 μg kg^{-1}/6.2 μg kg^{-1}	Detection time:45 min, complex, high cost, time consuming	(Chen et al. 2008)
Colorimetric detection	0-0.2 μM/7.4 nM	Detection time:1 min, visible, simple, low cost, high specific	This method

References

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Turnipseed, S.B., Clark, S.B., Karbiwnyk, C.M., Andersen, W.C., Miller, K.E., Madson, M.R., 2009. J Chromatogr B 877(14), 1487-1493.