Supporting Information

SERS-based immunoassay of tumor marker VEGF using DNA aptamers and silica-encapsulated hollow gold nanospheres

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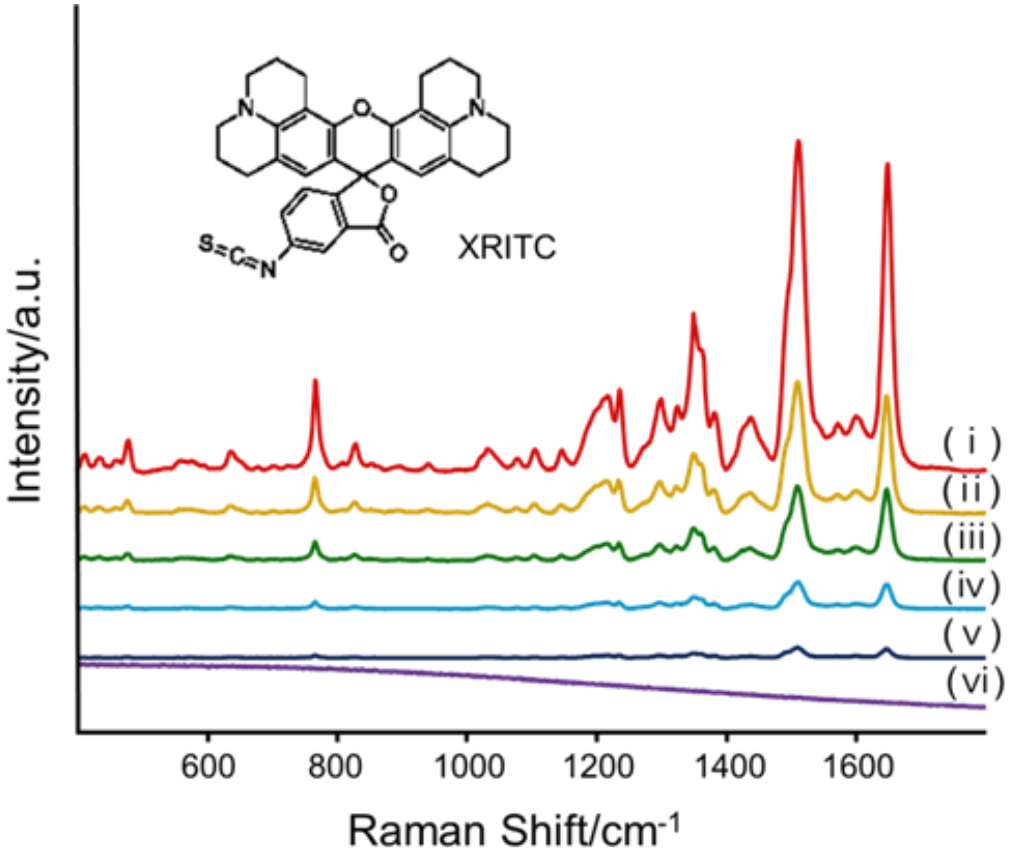

Fig. S1 SERS spectra for decreasing concentrations of XRICT adsorbed on HGNs: (i) 500 nM, (ii) 200 nM, (iii) 100 nM, (iv) 50 nM, (v) 20 nM, and (vi) Raman spectrum of 2.0 μM of free XRITC solution.

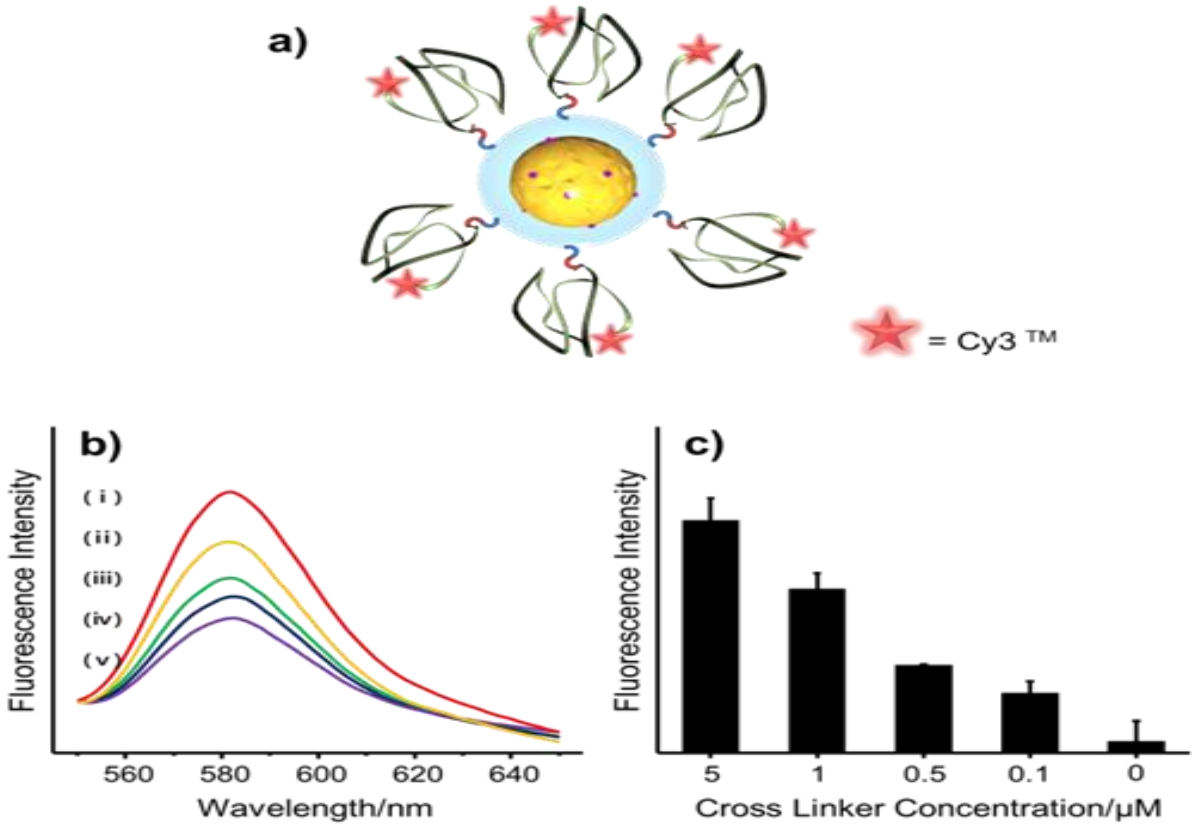

Fig. S2 Evaluation of the loading density of (a) Cy3-labeled aptamer DNA-conjugated SEHGNs, (b) fluorescence emission spectra for decreasing concentrations of sulfo-SMCC: (i) 5 μM, (ii) 1 μM, (iii) 0.5 μM, (iv) 0.1 μM, and (v) 0 μM, and (c) the corresponding fluorescence intensity change at 585 nm. Error bars indicate standard deviations from 5 measurements.

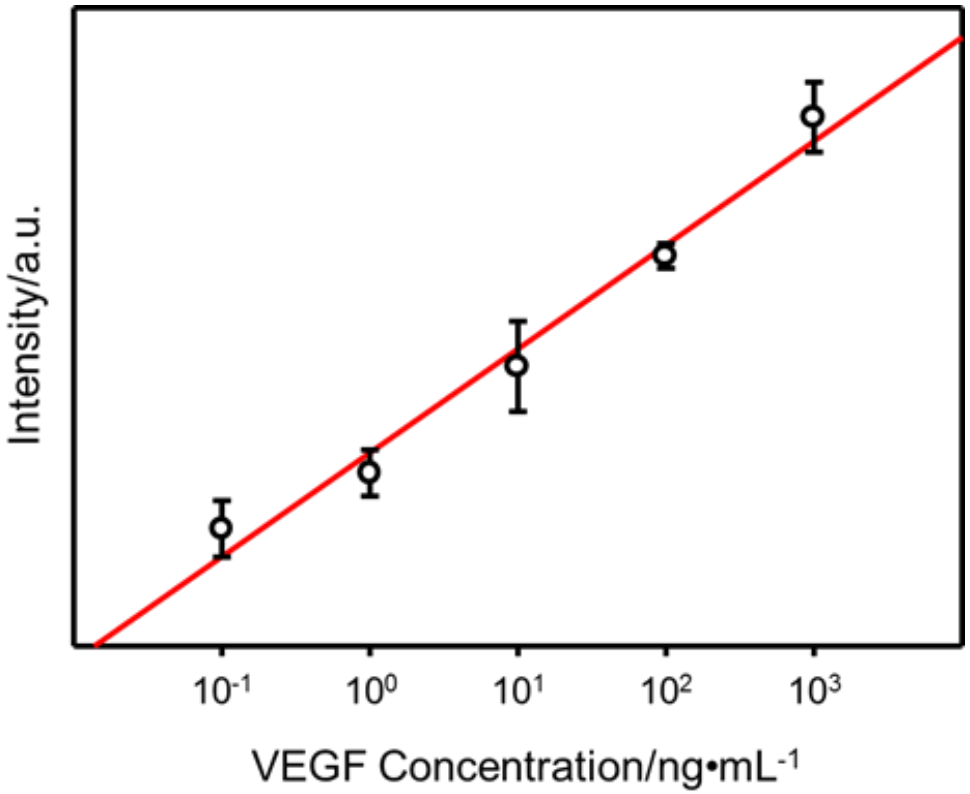

Fig. S3 Calibration curve of the SERS signal at 1650 cm^{-1} as a function of VEGF concentration in the higher concentration range from 0.1 to 1000 ng/mL.