

Supplementary materials

Tumor phantom with incorporated SERS tags: detectability in a turbid medium

Figure S1

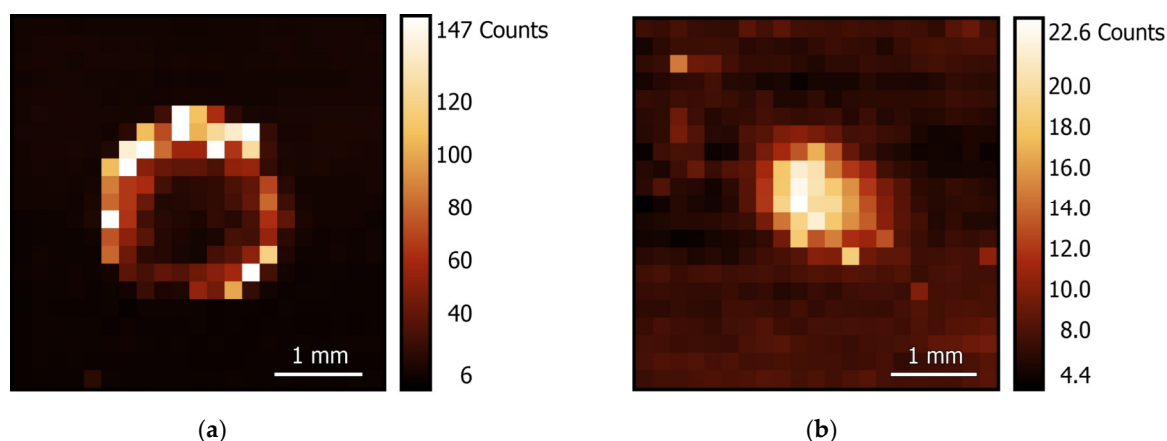


Figure S1. False-color Raman maps of the CA spheres with incorporated Raman reporters placed into medium with scattering coefficient 0 (a), 2 (b) cm^{-1} . Color decoding bar shows on the right. Concentrations of incorporated SERS tags are $2 \times 10^9 \text{ cm}^{-3}$, gel thickness is 6 mm.

Figure S2

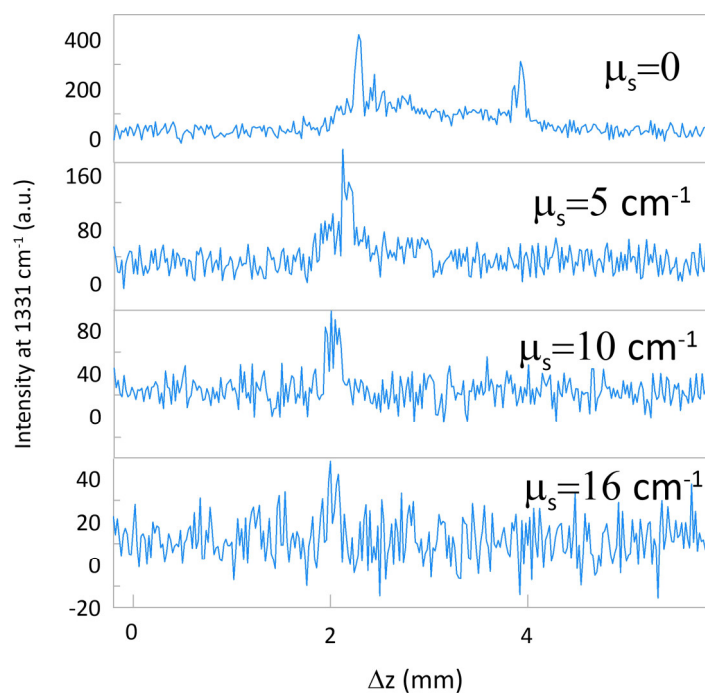


Figure S2. The dependence of SERS strongest peak intensity at 1331 cm^{-1} on the deepness of laser focusing. $\Delta z=0$ corresponds to top of the agarose gel while $\Delta z=6\text{ mm}$ corresponds to bottom of the sample. The data for different scattering coefficient of the upper layer from $\mu_s=0$ to 16 cm^{-1} .

Figure S3

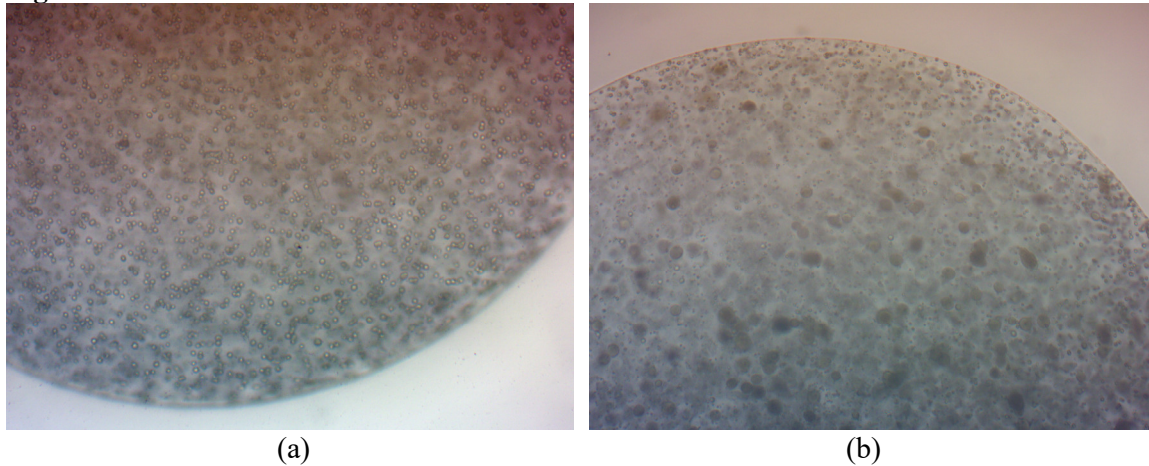


Figure S3. Optical image of the CA spheres with incorporated Raman reporters under 50x (a), 100x (b) magnification. Concentrations of incorporated SERS tags are $2 \times 10^9\text{ cm}^{-3}$