Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information for

An Upconversion Nanocomposite for Fluorescence Resonance Energy Transfer Based Cholesterol-Sensing in Human Serum

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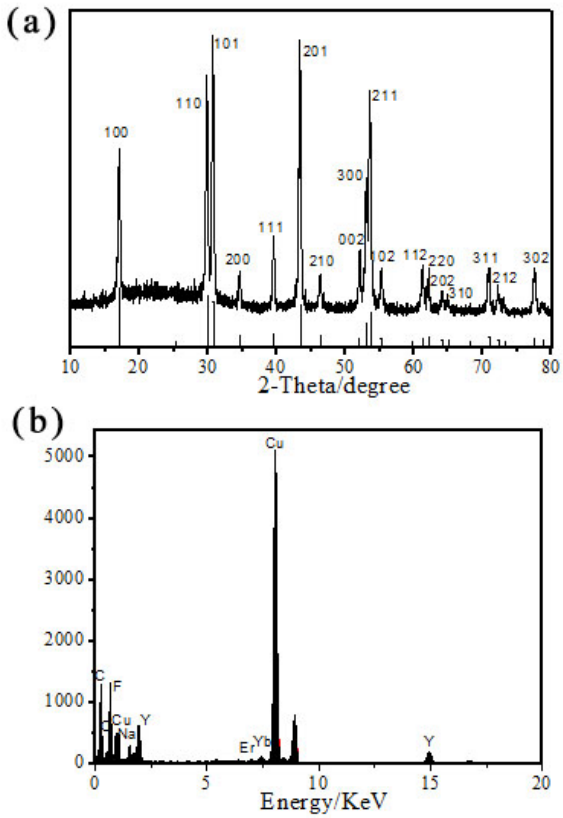

Fig. S1 XRD patterns of the as-synthesized OA-UCNPs (straight lines show the standard pattern of pure hexagonal $NaYF_4$, JCPDS No. 28-1192) (a), the EDX of OA-UCNPs (b).

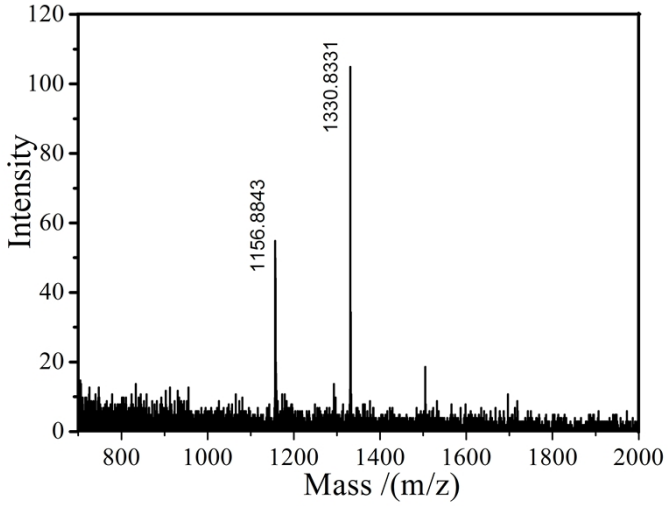

Fig. S2 MS of CD-Cit in aqueous solution

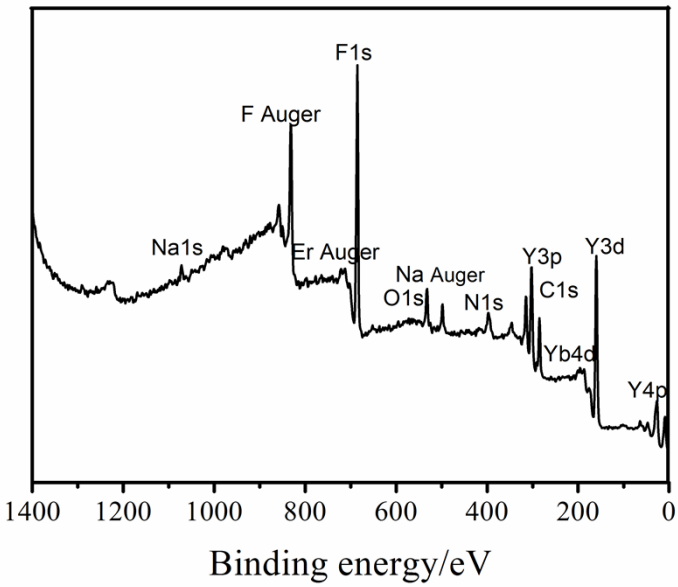

Fig. S3 XPS spectrum of RB-CD-Cit-UCNPs

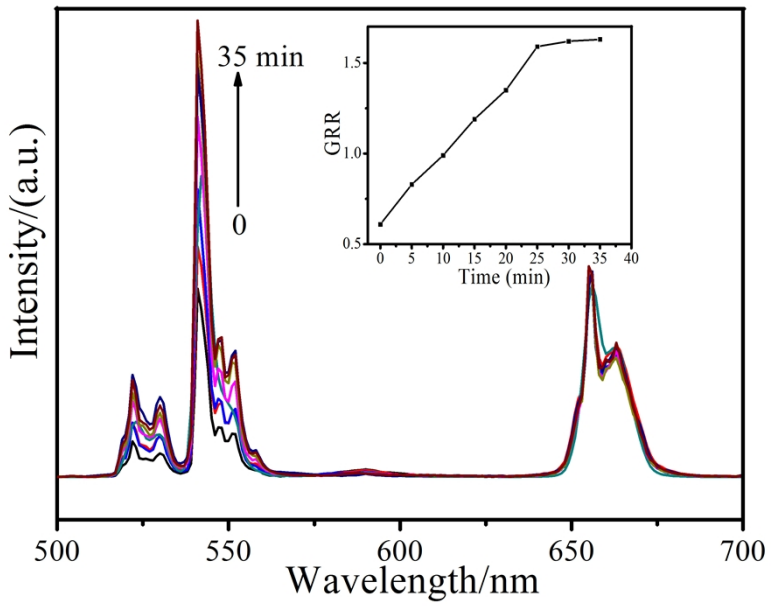

Fig. S4 UCL spectra were recorded from 0 to 35 min when 80 μM Cho was introduced to 0.5 mg/mL RB-CD-Cit-UCNPs in the Tris-HCl buffer solutions (pH= 7.4), inset is the relative intensity (GRR) as a function of reaction time.