Electronic Supporting Information

A fluorescence nanosensor for lipase activity: enzyme-regulated quantum dots growth in situ

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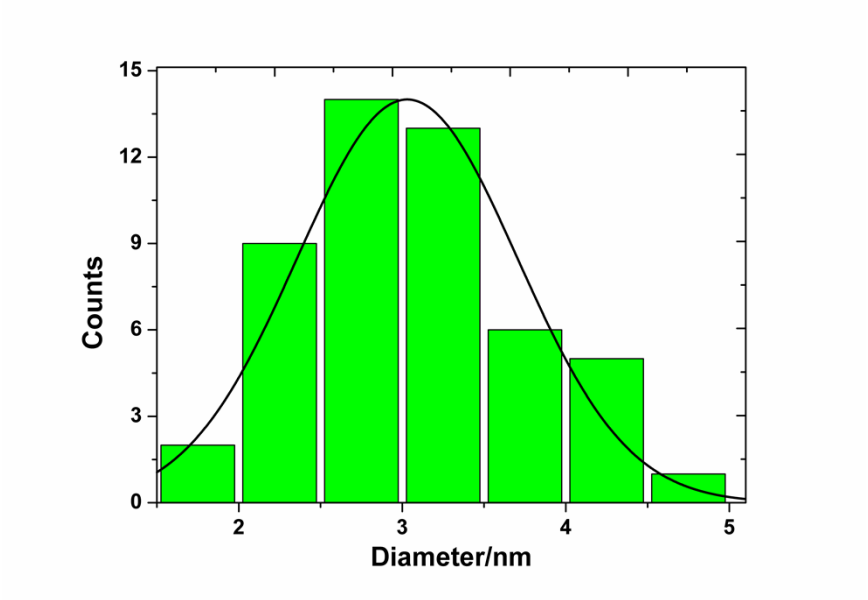

Fig. S1 Distribution of CdS QDs diameter determined by TEM image analysis.

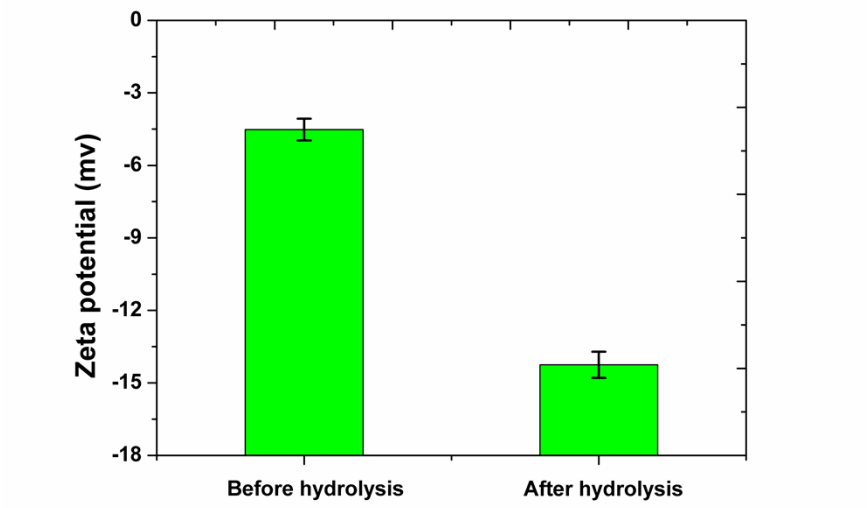

Fig. S2 The zeta potential of the assay system, before and after addition of 2.0 mg mL^{-1} lipase.

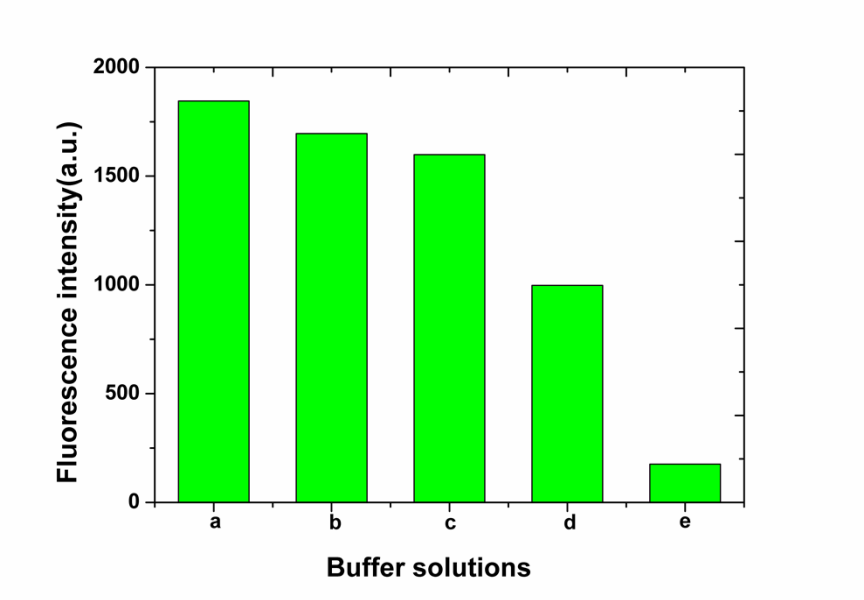

Fig.S3 Fluorescence intensity of the assay system in different buffer solutions including a. Tris-HCl; b. KH_2PO_4-NaOH; c. Na_2HPO_4-citric acid; d.PBS; e. H_2O (pH=8.0) in the presence of 2 mg mL^{-1} lipase.

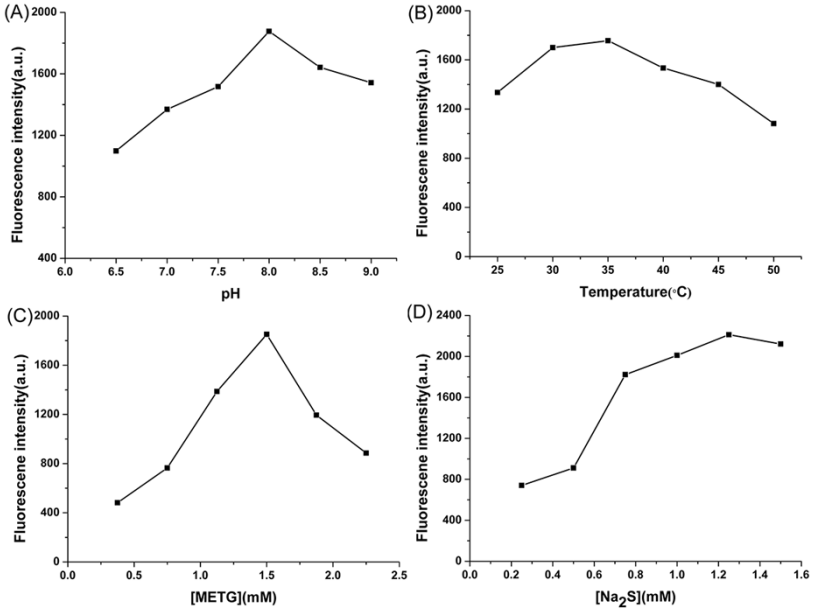

Fig.S4 (A) Effects of pH; (B) Effects of temperature; (C) Effects of the substrate concentration(METG); (D) Effects of sodium sulfide. The experiments were performed with 2.0 mg mL^{-1} lipase.

Table.S1 Use of METG as substrate in pH-stat method for detecting the hydrolytic activity of commerical lipases. All assays were performed with 0.02 g lipase at 35℃and pH 8.0 for 10min.

Lipase	CRL	PPL	SBE-01Li	RNL
V_{NaOH} (mL)	7.82	5.60	5.20	4.05
Activity(U/g)	189.24	135.52	125.84	98.01