Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information

Table S1 Results of spiked studies in human serum samples

	Spiked (nM)	Calculated (nM)	Recovery (%)
Cys	50	54.7±3.9	109.4
	100	97.2±2.6	97.2
Hcy	50	52.1±4.1	104.2
	100	98.9±2.8	98.9

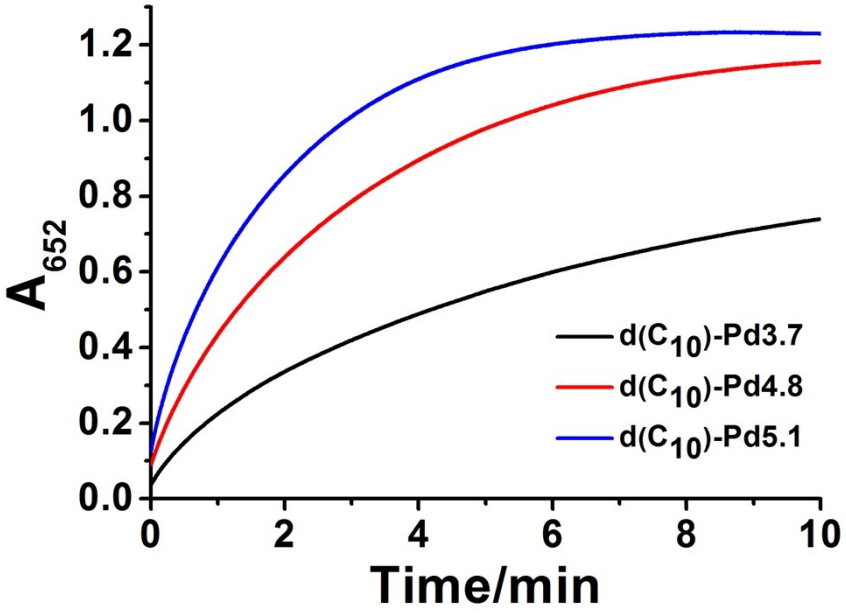

Fig. S1 UV-vis absorption-time course curves of TMB-H_2O_2 reaction system catalyzed by different d(C_{10})-Pd at 20 °C.

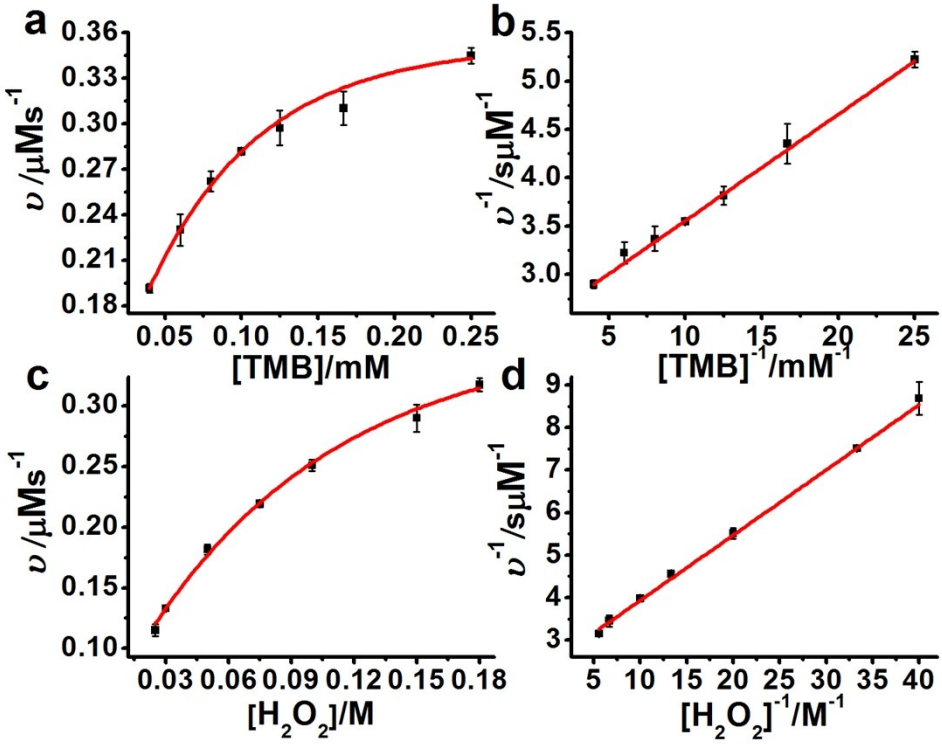

Fig. S2 Steady-state kinetics of d(C_{10})-Pd5.1 are measured through the oxidization of TMB in the presence of H_2O_2 at 20 °C at pH 4.0 using 900 nM Pd (calculated from precursor): (a) The concentration of H_2O_2 is fixed at 125 mM and the TMB concentration is varied, (c) The concentration of TMB is fixed at 0.125 mM and the H_2O_2 concentration is varied, (b) and (d) are double-reciprocal plots of (a) and (c), respectively.

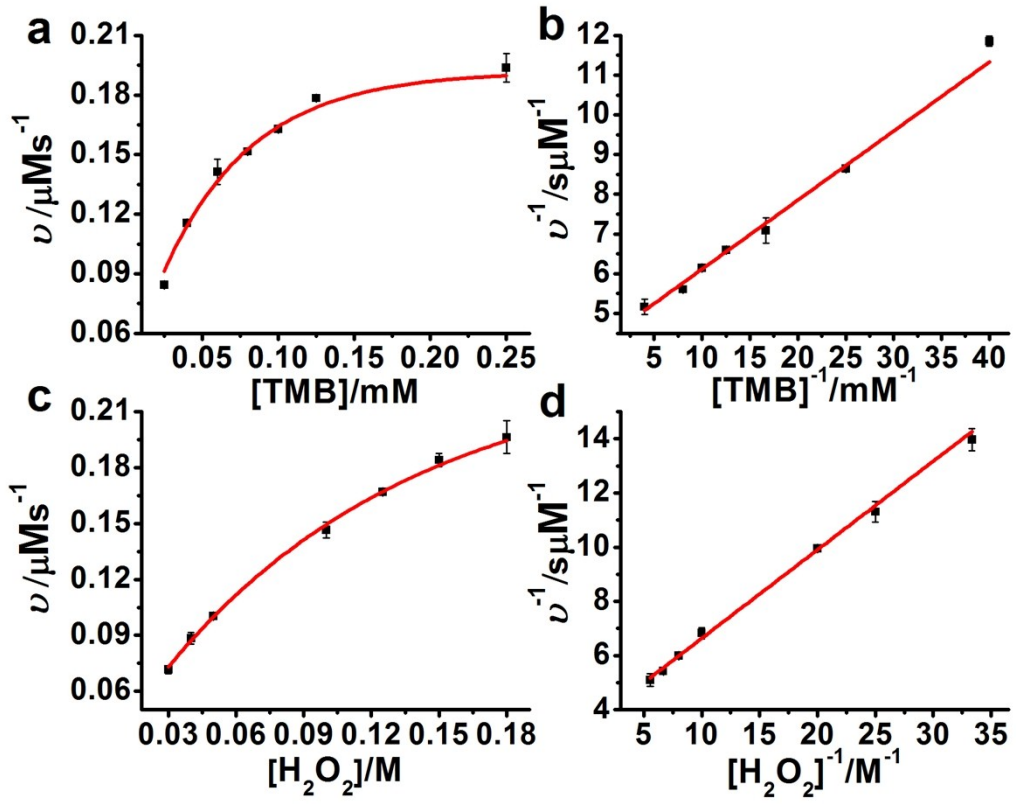

Fig. S3 Steady-state kinetics of d(C_{10})-Pd4.8 are measured using 900 nM Pd (calculated from precursor) in the presence of 150 nM Cys: (a) The concentration of H_2O_2 is fixed at 125 mM and the TMB concentration is varied, (c) The concentration of TMB is fixed at 0.125 mM and the H_2O_2 concentration is varied, (b) and (d) are double-reciprocal plots of (a) and (c), respectively.

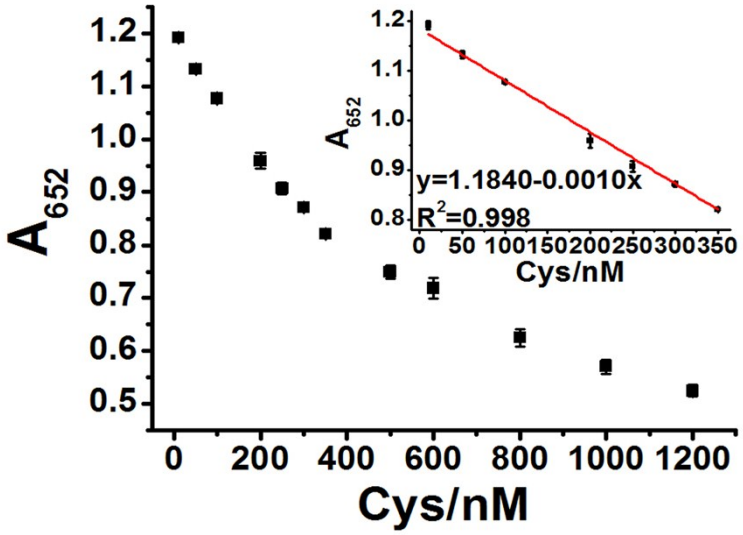

Fig. S4 Plots of the A_{652} with the concentration of Cys using d(C_{10})-Pd5.1, and the inset is corresponding calibration curve.

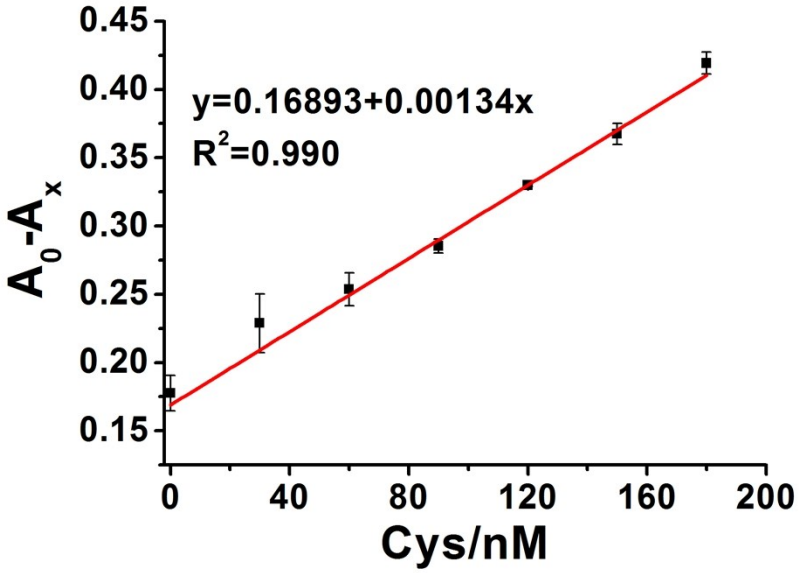

Fig. S5 Calibration curve for Cys in human serum samples, A_0 represents the A_{652} collected from the TMB-H_2O_2 reaction in NaH_2PO_4-Na_2HPO_4 buffer (pH 4.0) catalyzed by d(C_{10})-Pd4.8, and A_x represents the A_{652} collected from the TMB-H_2O_2 reaction in diluted serum (pH 4.0) catalyzed by d(C_{10})-Pd4.8 in the absence and presence of Cys. The A_{652} signal was collected at 10 min after initiation. The concentration of Cys in diluted human serum was determined as the epitaxial linear fellowship at horizontal axis.