Supporting Information

Direct glucose detection in whole blood by colorimetric assay based on glucose oxidase-conjugated graphene oxide/MnO_2 nanozymes

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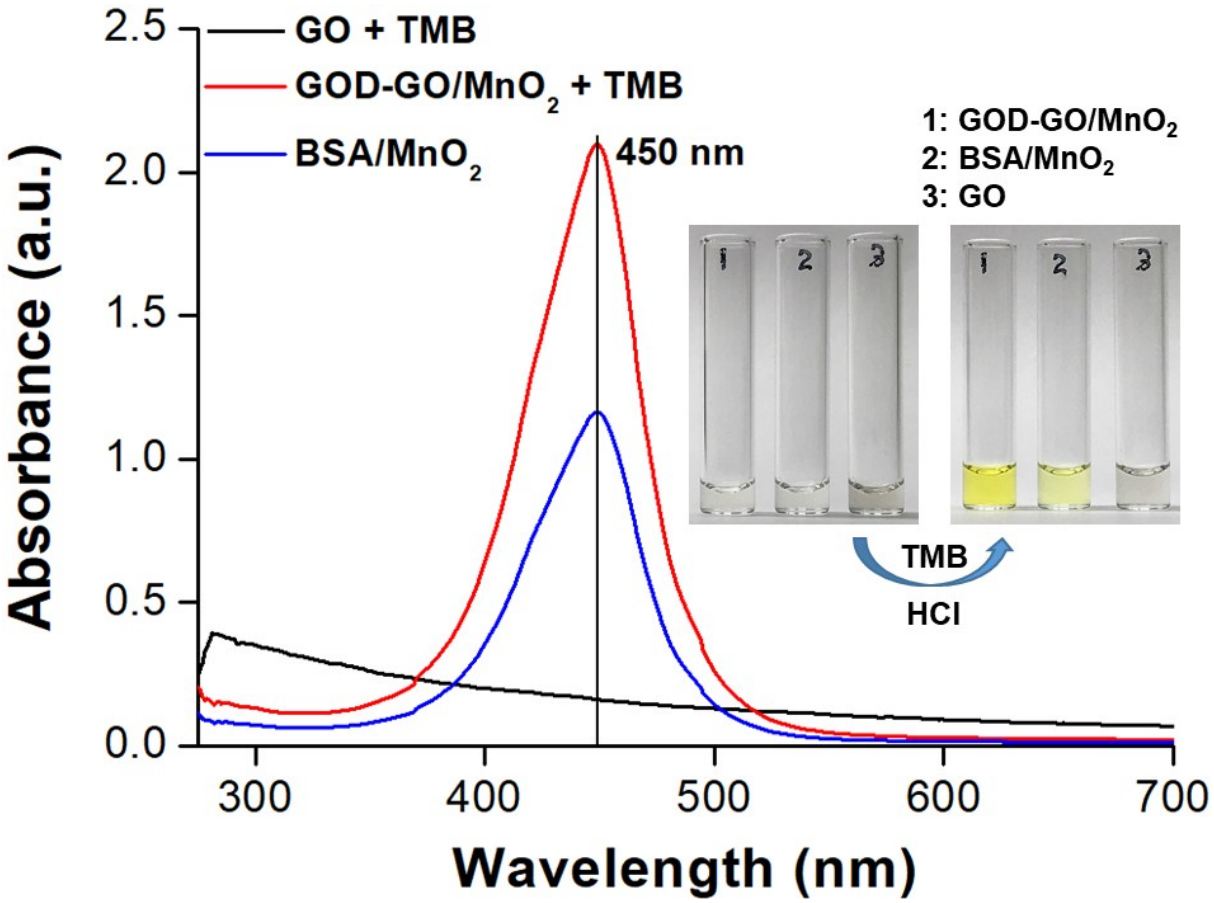

Fig. S1. Absorbance at 450 nm of GO and GOD-GO/MnO_2 reacted with TMB/H_2O_2 for 1 min at room temperature after HCl was added to stop the reaction; the inset shows the corresponding image.

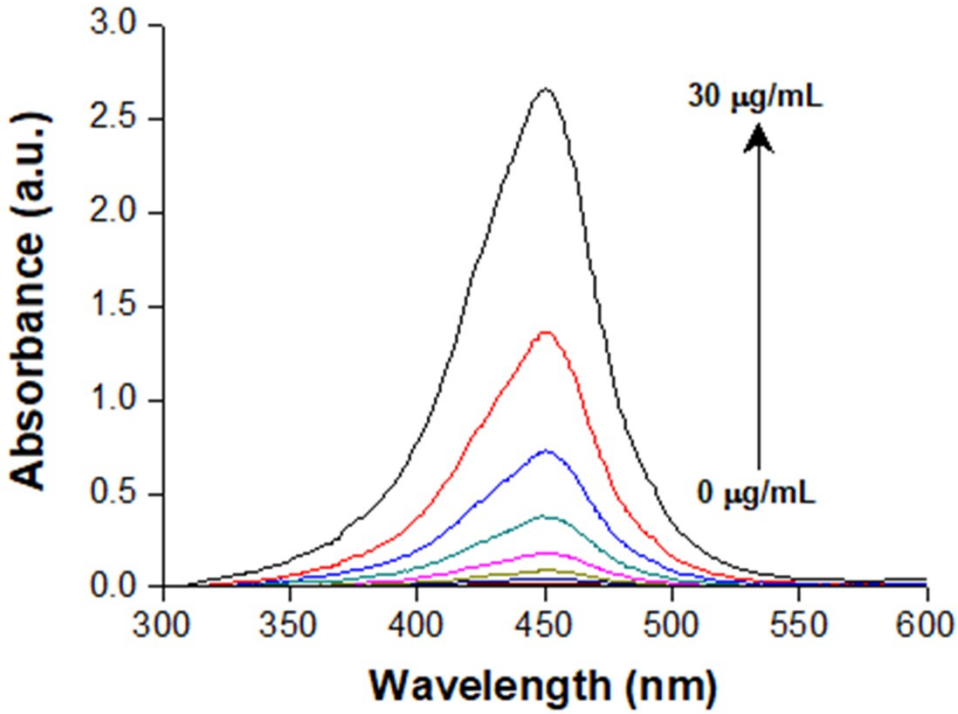

Fig. S2. UV−vis absorption spectra of the oxidized TMB in the presence of GOD-GO/MnO_2 for 1 min after HCl was added to stop the reaction; the arrow indicates the signal changes with the increasing concentrations of GOD-GO/MnO_2 (from 0 to 30 μg/mL).

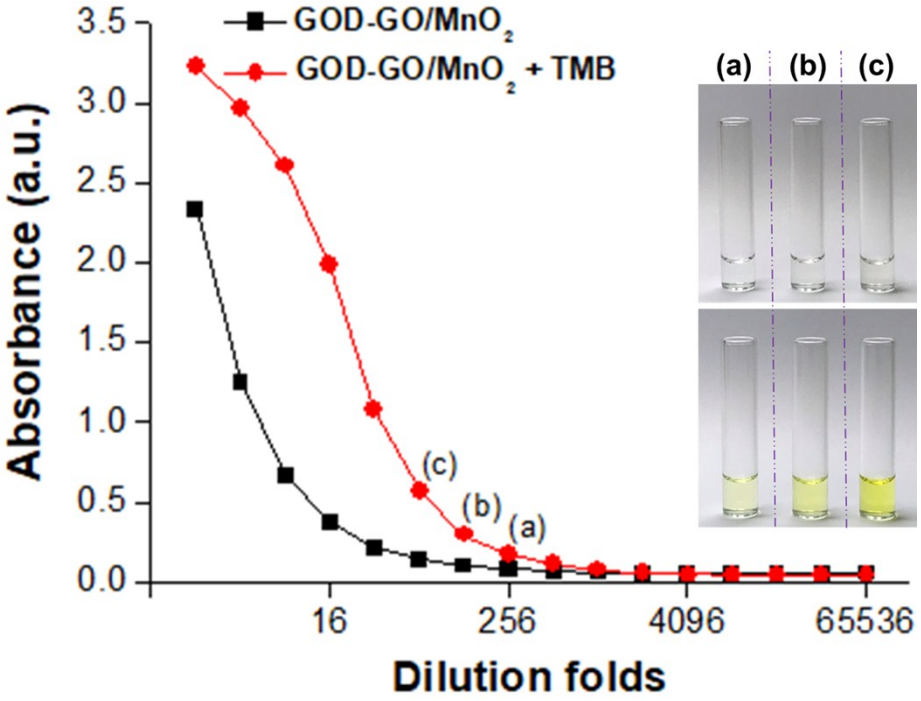

Fig. S3. Catalytic abilities of GOD-GO/MnO_2 during various dilution folds were determined by A_{370nm} for GOD-GO/MnO_2 and A_{450nm} for GOD-GO/MnO_2 + TMB/H_2O_2. Inset image (a): GOD-GO/MnO_2 suspension with a 64-fold dilution in the absence (*top*) and presence (*bottom*) of TMB, (B): GOD-GO/MnO_2 suspension with a 128-fold dilution in the absence (*top*) and presence (*bottom*) of TMB, and (C): GOD-GO/MnO_2 suspension with a 256-fold dilution in the absence (*top*) and presence (*bottom*) of TMB.

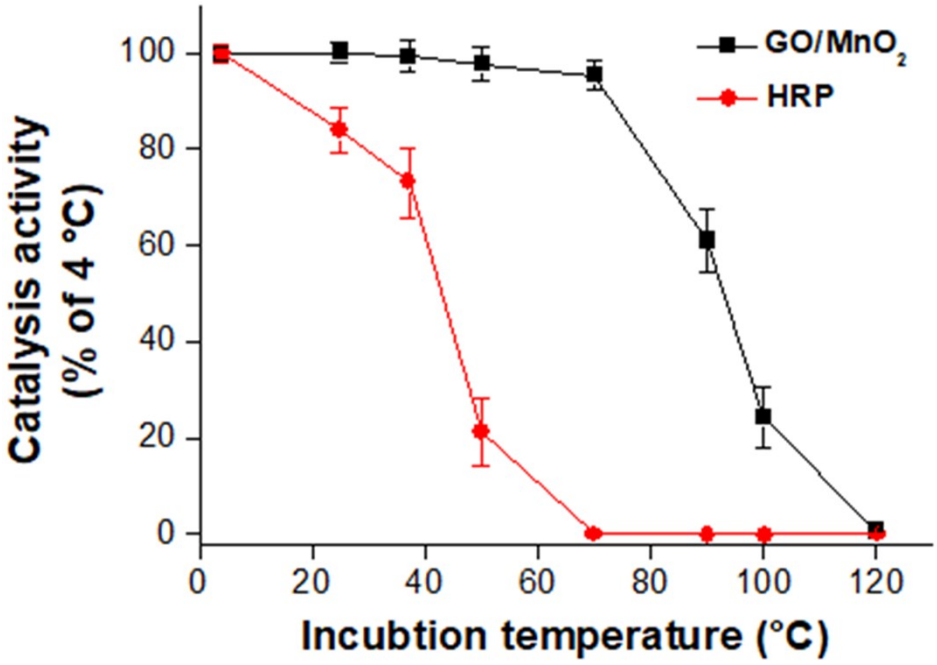

Fig. S4. Storage stability of GO/MnO_2 and HRP stored at different temperatures (from 4°C to 120°C) for 24 h; the activities of the stored HRP and GO/MnO_2 were determined by comparing their A_{450nm} values with their initial A_{450nm} values at day 0; values are means ± SD (n = 6).

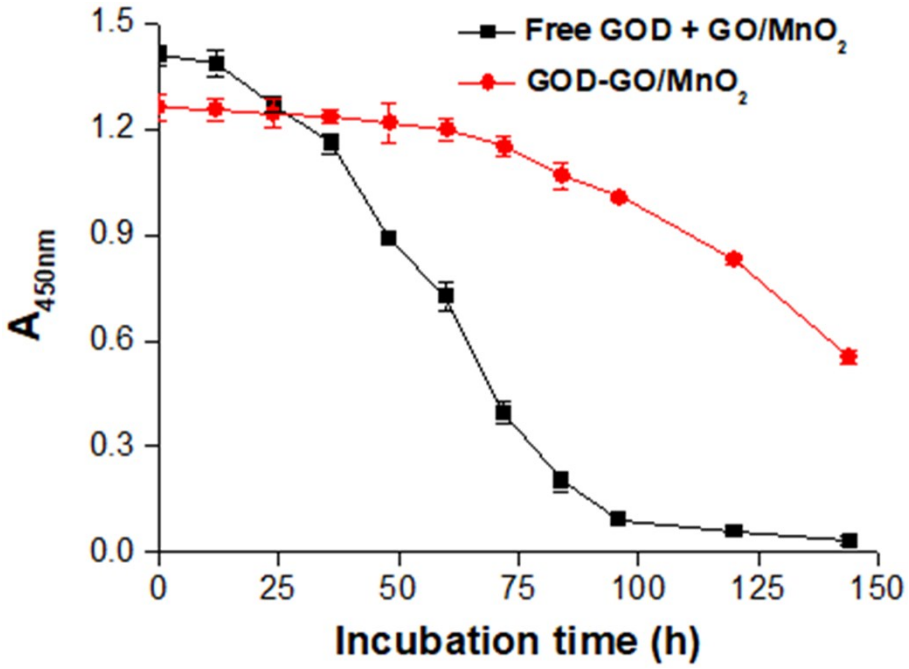

Fig. S5. Storage stability of free GOD (free GOD + GO/MnO_2) and immobilized GOD (GOD-GO/MnO_2) stored at 40°C for a period of 0–144 h; the activities of the stored free GOD and immobilized GOD were determined by comparing their A_{450nm} values at each time point; values are means ± SD (n = 6).