Supplementary material

Enzyme immobilisation on poly-L-lysine-containing calcium phosphate particles for highly sensitive glucose detection

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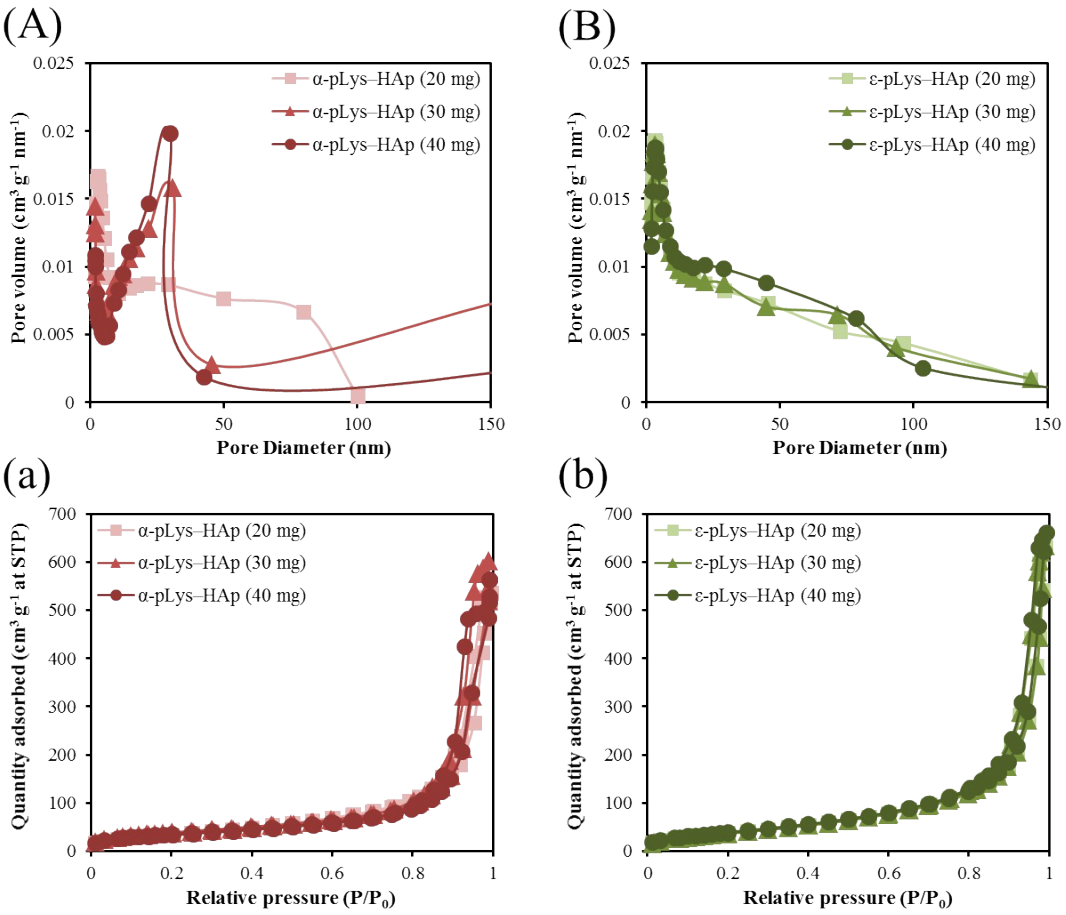

Fig. S1 Pore size distribution curves (A and B) and nitrogen adsorption-desorption isotherms (a and b) of α-pLys–HAp (20, 30 and 40 mg) and ε-pLys–HAp (20, 30 and 40 mg).

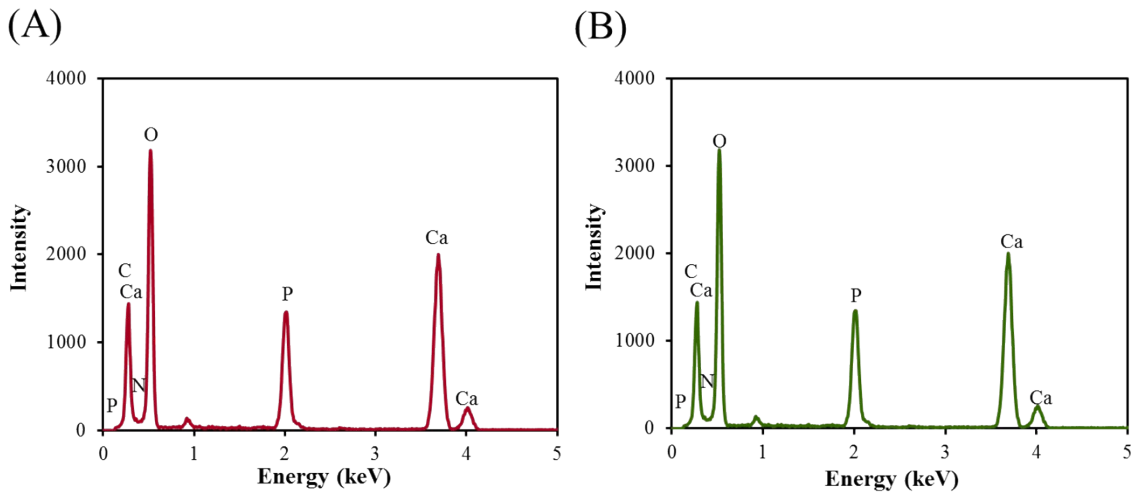

Fig. S2 EDX spectra of (A) α-pLys–HAp (40 mg) and (B) ε-pLys–HAp (40 mg) (from Fig. 3).

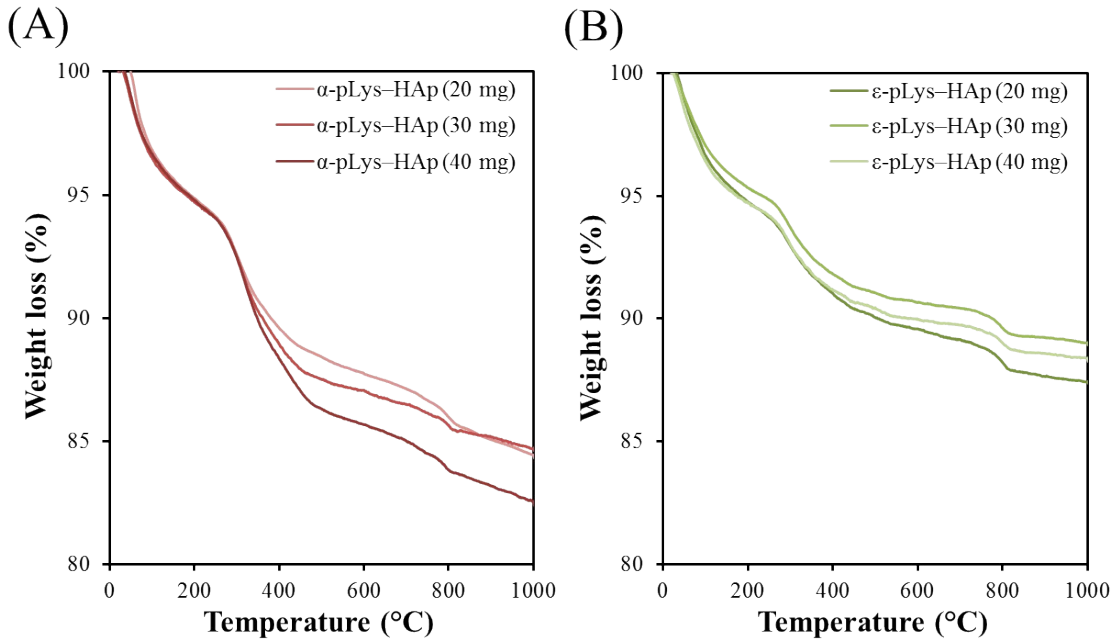

Fig. S3 Thermogravimetry (TG) curves for (A) α-pLys–HAp and (B) ε-pLys–HAp.

Table S1 Secondary structures (%) of α-pLys and ε-pLys

Sample	α-helix	β-sheet	β-turn	Other
α-pLys	—*	>99 %	—*	—*
α-pLys + PO_4[a]	—*	63 %	18%	19 %
ε-pLys	—*	89 %	3 %	8 %
ε-pLys + PO_4[a]	21 %	22 %	28 %	29 %

* Trace percent.

[a] Each peptide (α-Lys or ε-Lys) (12 mg) was mixed with 20 mL $(NH_4)_2HPO_4$ solution (27 mM) and further stirred for 2 h at 20 °C. Then, the resulting product was obtained by freeze-drying.

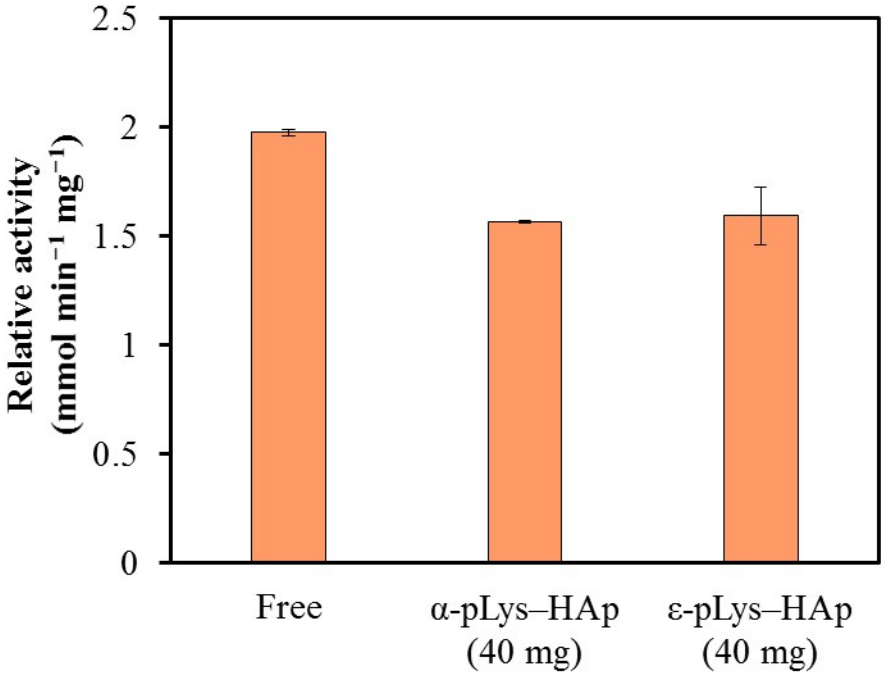

Fig. S4 The relative activities of GOX adsorbed on α-pLys–HAp (40 mg) and ε-pLys–HAp (40 mg).