

Glycine-proline-hydroxyproline Modification Improves the Affinity of CEMP1 N-terminal 20-residue Peptide to Collagen

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Supplementary information

Figure S1

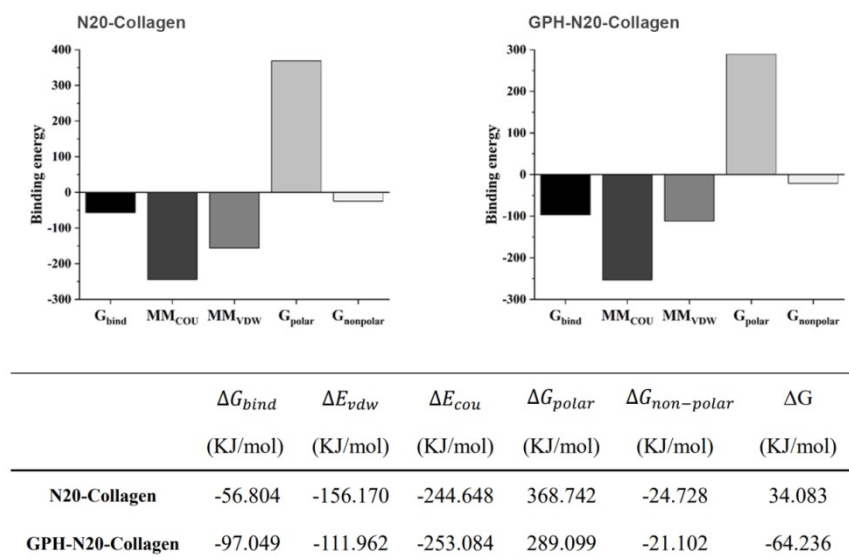


Fig S1. MM-PBSA results of N20-collagen and GPH-N20-collagen.

Figure S2

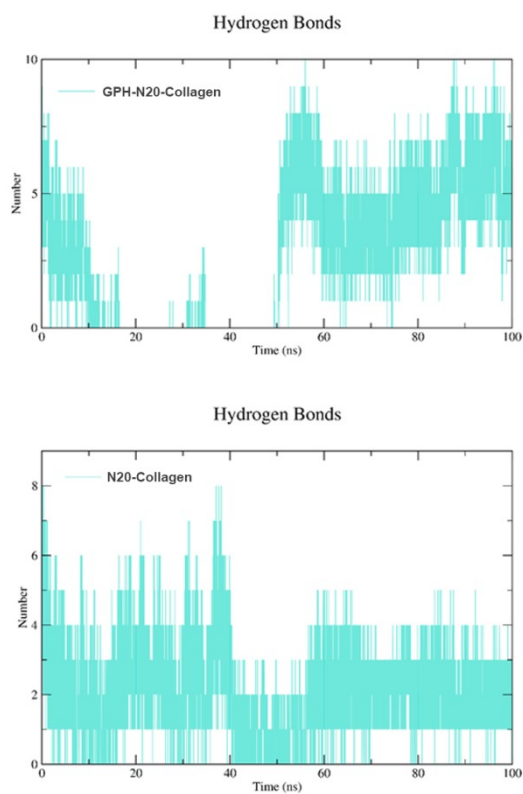


Fig S2. The number of hydrogen bonds in N20-collagen and GPH-N20-collagen.

Figure S3

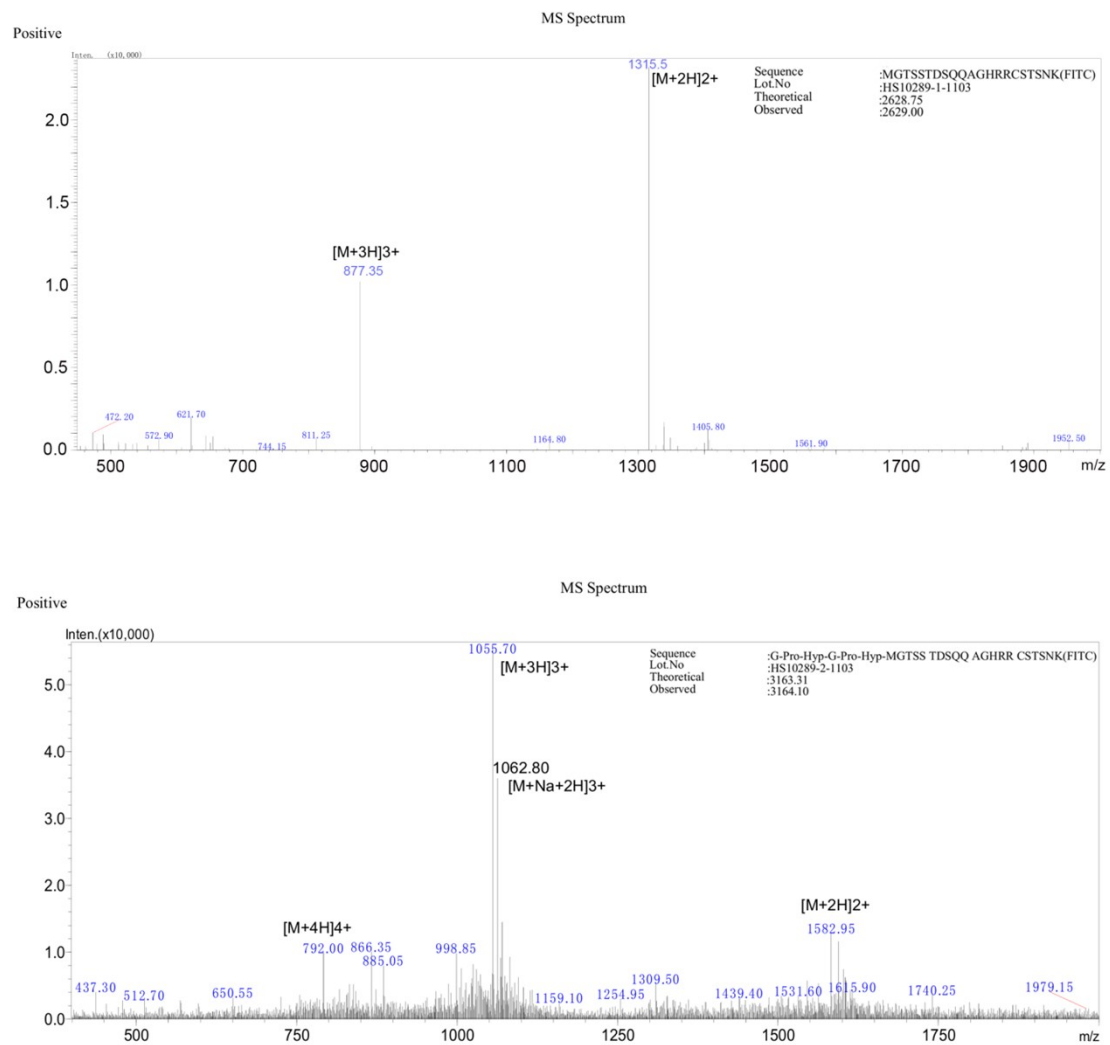


Fig S3. Amino acid composition sequences of N20 peptide and GPH-N20 peptide, as well as their mass spectra.

Figure S4

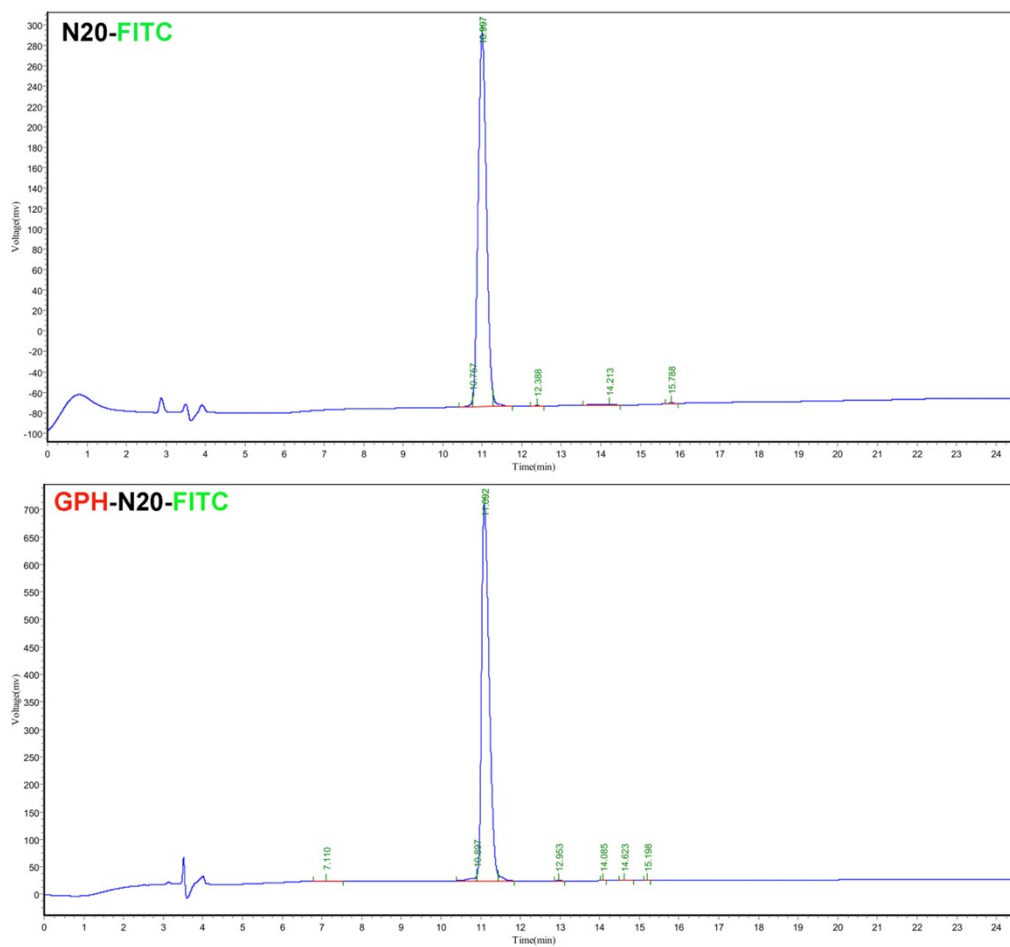


Fig S4. The purity of N20 peptide and GPH-N20 peptide was characterized by HPLC.

Figure S5

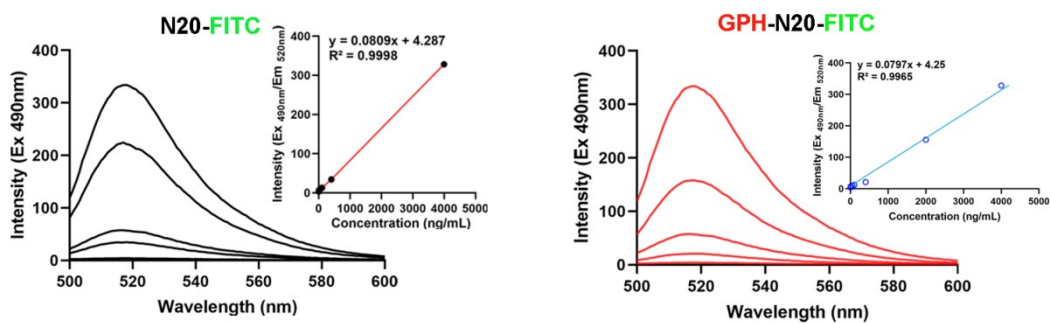


Fig S5. Emission spectra of two peptides generated by excitation light at 490 nm and the linear relationship between the maximum emission peak at 520 nm corresponding to different concentrations.

Figure S6

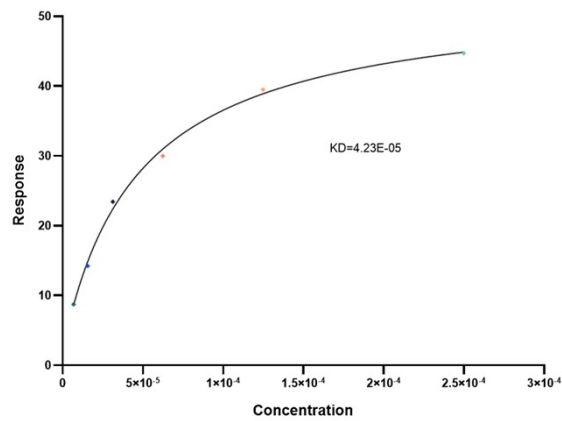


Fig S6. Type I collagen immobilized on CM5 chip can bind GPH-N20 with an affinity constant of 42 μ M as determined in a SPR assay, while pure N20 shows no affinity for type I collagen.

Figure S7

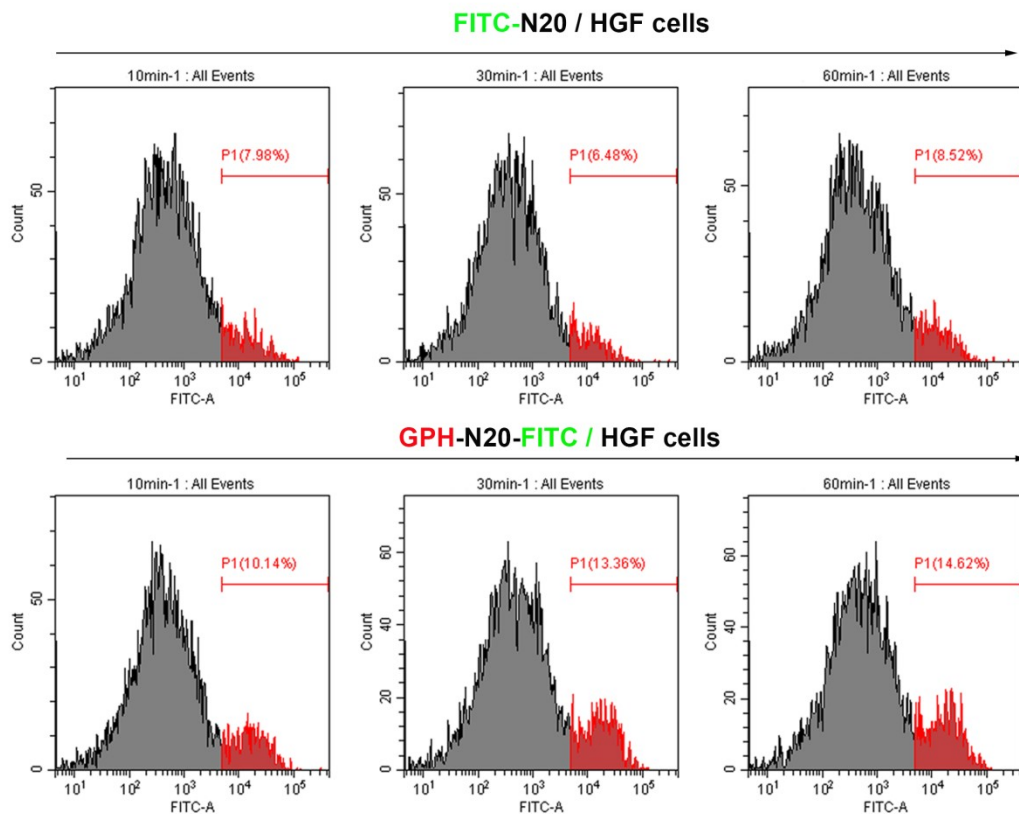


Fig S7. Cultivate HGF cells and co-incubate with 1 μ g/mL two peptides for 10, 30 and 60 min, respectively. After washing, detect the green fluorescence signals on the cell surface by flow cytometry (n=3).

Figure S8

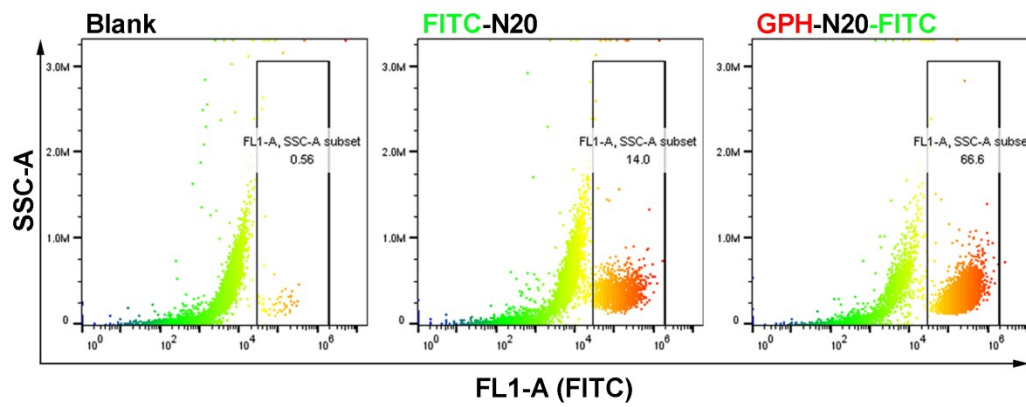


Fig S8. Cultivate HGF cells and co-incubate with 1 $\mu\text{g/mL}$ two peptides for 24h, respectively. After washing, detect the green fluorescence signals in HGFs by flow cytometry (n=4).