

Figure S1. Characterization of previously reported AuNP mineralization peptides. (a) Amino acid frequencies in high-mineralization peptides (TOP25) and low-mineralization peptides (WORST25) from the brightness evaluation from each peptide spot using ImageJ. (b) Physicochemical properties of high and low mineralization peptides. Physicochemical properties of high binding TOP25 peptides (Blue circle) and worse binding WORST25 peptides (Black circle) based on values of pI and GRAVY (the grand average of hydrophathy). The GRAVY value is defined as the average hydrophathy value for all amino acids; therefore, a high GRAVY value indicates hydrophobicity.

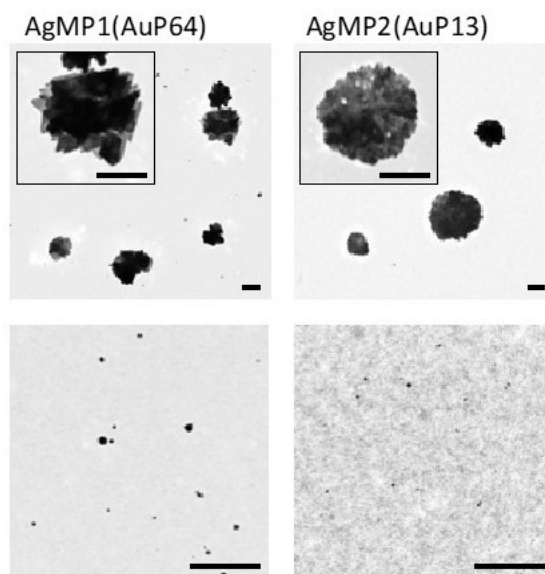


Figure S2. Transmission electron microscopic observation of silver nanoparticles (AgNPs) synthesized by two screened peptides (AgMP1 and AgMP2). The samples were prepared in the presence of peptides (5 mM) and AgNO_3 (50 mM). Scale bar indicates 250 nm.

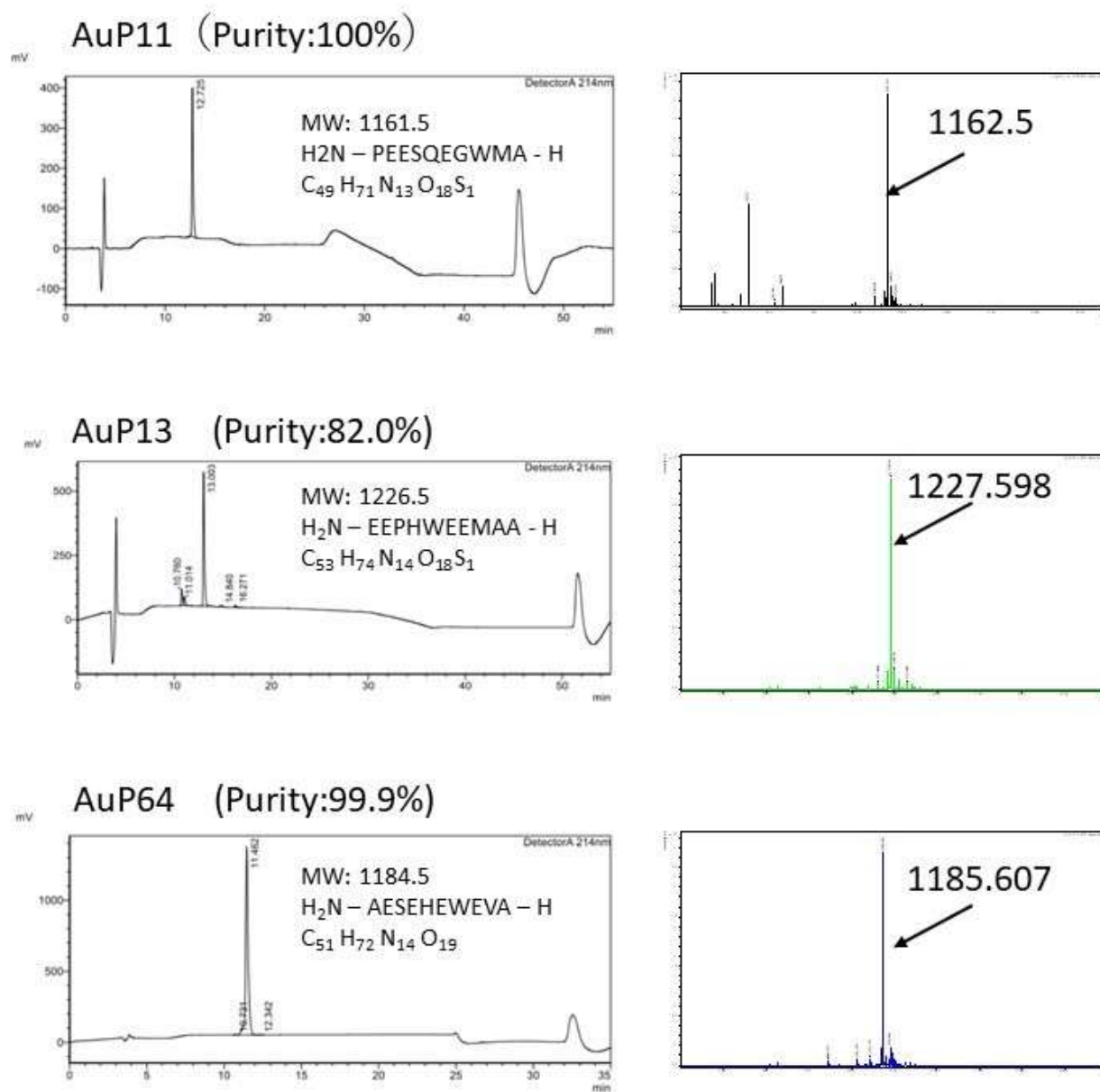


Figure S3. Confirmation of peptide purity by HPLC and MS.



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