

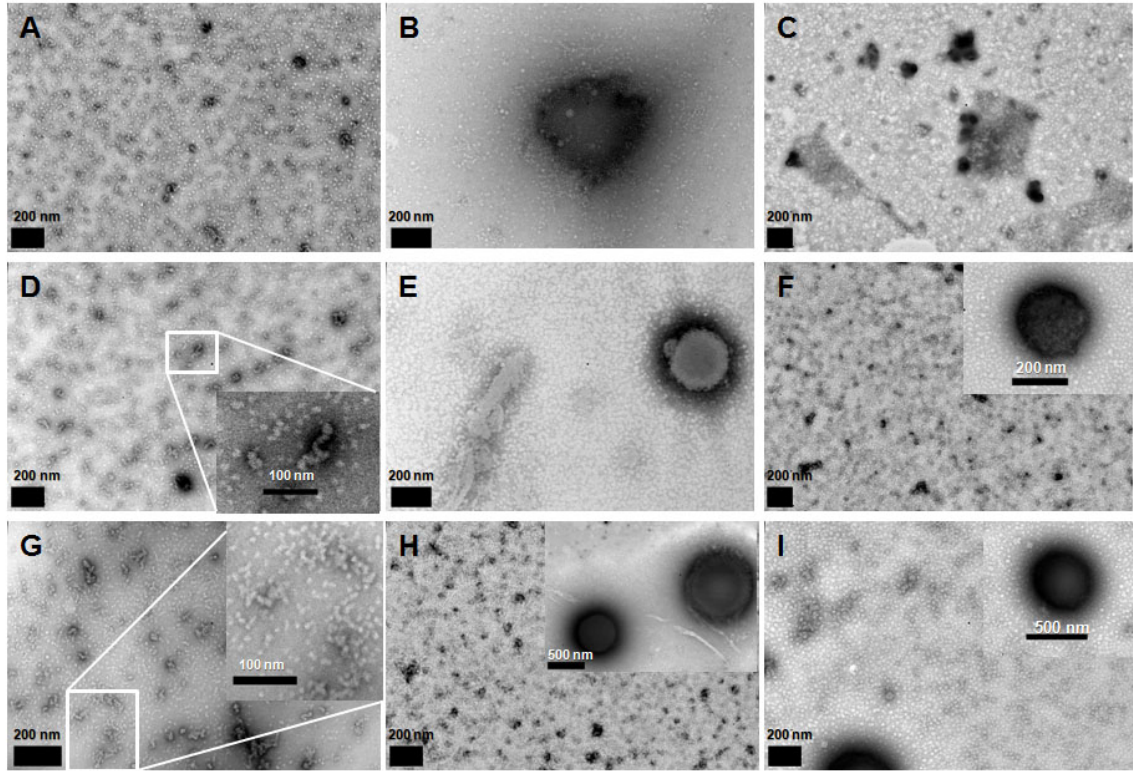
## Supplementary Information

### Amelogenin “Nanorods” Formation During Proteolysis by MMP-20

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**Figure S1.** Typical morphologies of assemblies formed from pure recombinant rP172 (A,D,G), rP148 (B,E,H) and their mixture at 1:1 ratio (C,F,I), in Tris-HCl buffer pH 8.0, 37 °C, collected at 1hr (C), 10 (F) hrs, 20 (I) hrs respectively. (A) Representative uniformly dispersed spherical particles with a few chains-like structures formed by rP172 at one hour. (B) Representative particles dispersed with the formation of large aggregates of rP148 at one hour. (C) Representative dispersed particles and a few aggregates formed from the combination of 1:1 ratio of rp172 and rP148 at one hour. (D) After 10 hours incubation, more chains-like structures were formed from the uniformly dispersed spherical particles of rP172. (E) After 10 hours incubation, large aggregates of rP148 continue to form and grow from the solution. (F) Representative dispersed particles and some aggregated formed (inset) after incubation of rp172 and rP148, at 1:1 ratio for 10hrs, at 37 °C. (G) After 20 hours incubation, even more chain-like structures with high aspect ratio formed from the uniformly dispersed spherical particles of rP172. (H) After 20 hours incubation, rP148 formed large aggregates (inset). (I) After 20 hours incubation of 1:1 mixture of rp172 and rP148, large aggregates continue to appear (inset).