SUPPLEMENTARY INFORMATION FILE

Bone regeneration by polyhedral microcrystals from silkworm virus

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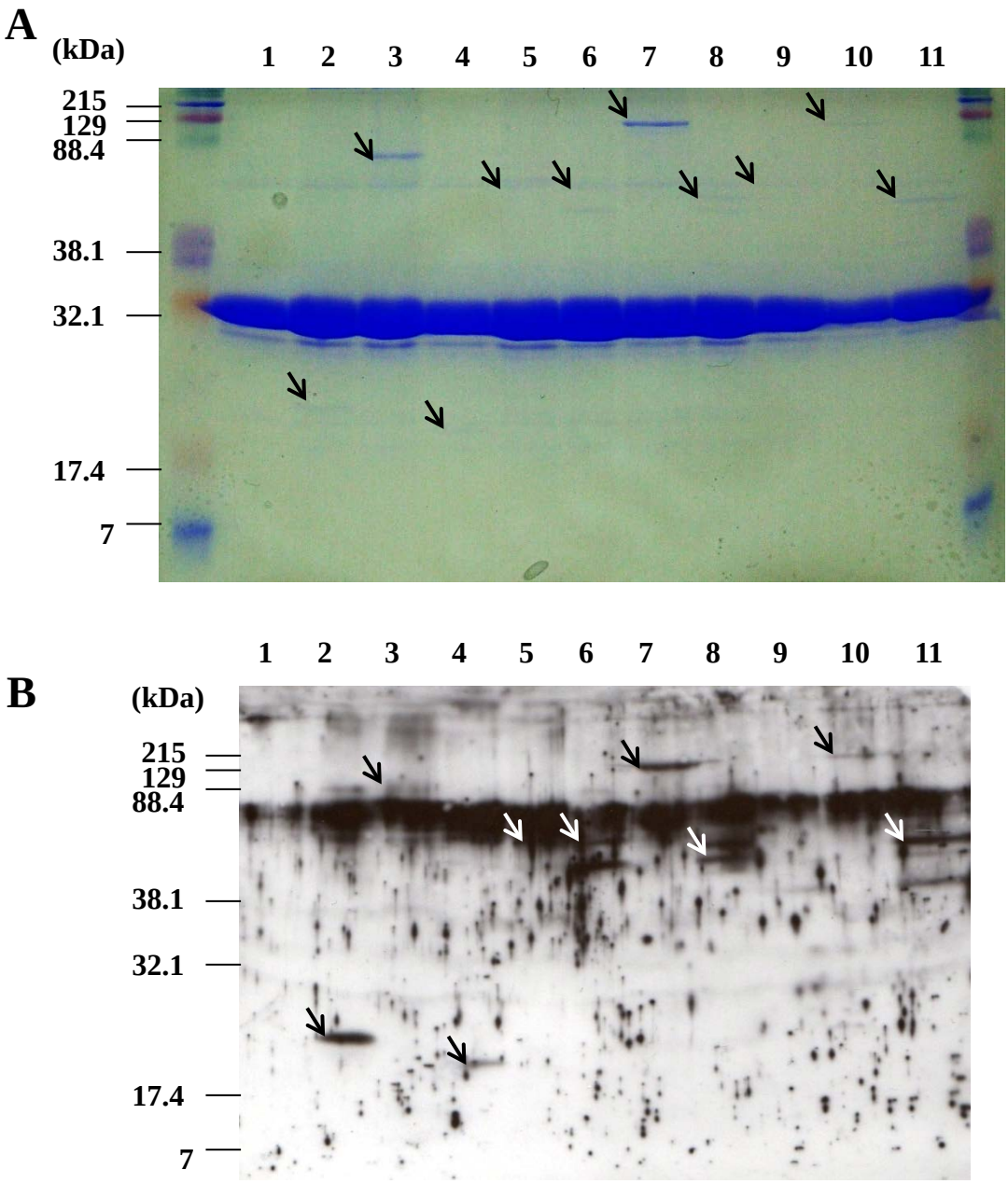

Figure S1 | Analyses of immobilization of BMP2 into polyhedra by SDS-PAGE (A) and western blot (B). Lane 1, empty polyhedra. Lanes 2-4, mature BMP-2 fused with VP3-S at the C-terminus, VP3-L and H1 at the N-terminus. Lanes 5-8, Full-length BMP-2 fused with VP3-S at the C-terminus, VP3-S, VP3-L, and H1 at the N-terminus. Lanes 9-11, Pro BMP-2 fused with VP3-S, VP3-L, and H1 at the N-terminus. Arrows show BMP-2 immobilized into polyhedra.

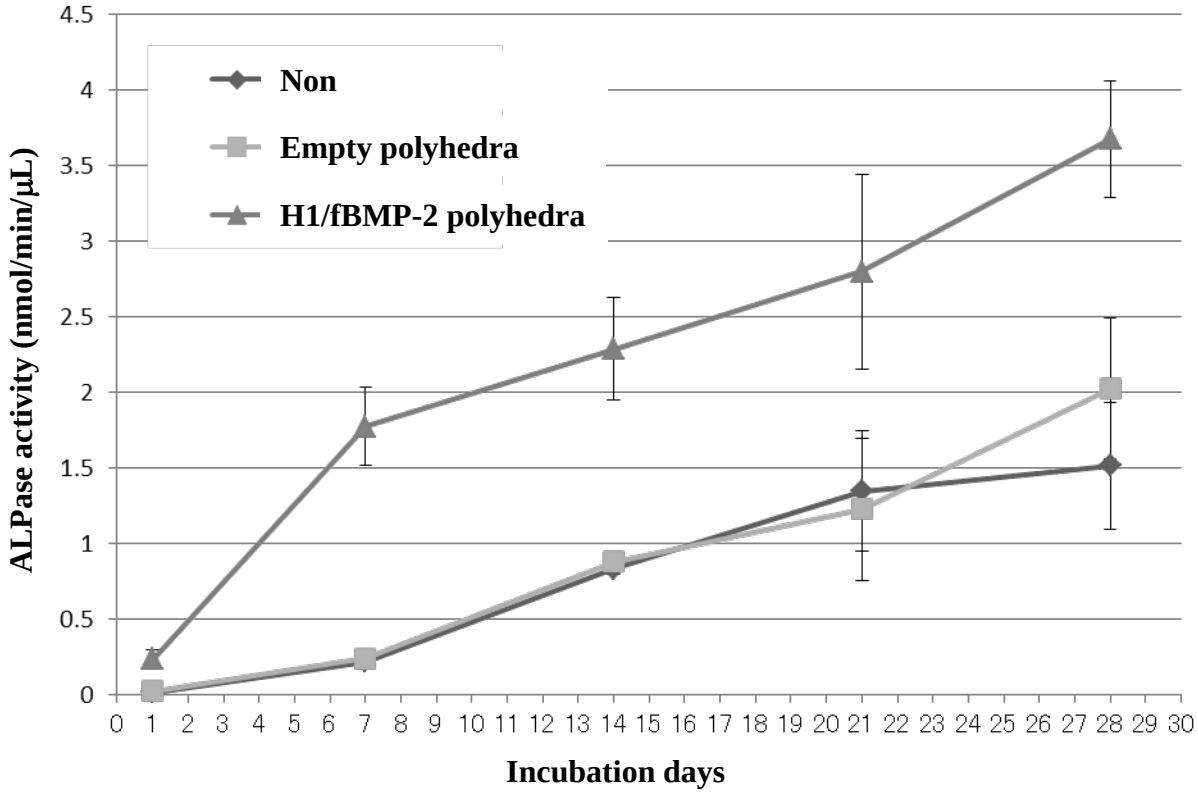

Figure S2 | Assay of ALPase activity. Cultured cells in 96-well plates were rinsed with PBS, harvested by treatment with 0.05% trypsin-EDTA and then cells were solubilized with lysis buffer (10 mM NaOH, 0.2% Triton X-100). ALPase activity was detected with LabAssay ALP (Wako Pure Chemical Industries) in triplicate cultures according to the manufacturer's instructions. The dephosphorylation from p-nitrophenyl phosphate was monitored at 405 nm absorbance. A standard curve was prepared with p-nitrophenol. ALPase units were defined as one nanomole of p-nitrophenol released per minute per DNA content. DNA concentration was determined with the QuantiFluor™ dsDNA system (Promega).