Supporting Information

Table S1. Chemical composition of the supersaturated calcium phosphate solution

Chemical composition	*Concentration*
Na+	150.50 (mM)
K+	8.52 (mM)
Ca2+	3.83 (mM)
Cl-	144.32 (mM)
H2PO4-	0.25 (mM)
HPO42-	2.31 (mM)
HCO3-	15.00 (mM)
L-lactate-	3.51 (mM)
glucose	22.27 (mM)
AsMg	20 (μg/mL)

Table S2. The porous parameters by N2 adsorption/desorption isotherms of the MBG coatings

Sample name	*SBET (m2/g)*	*Vtotal (cm3/g)*	*Dpore (nm)*
F0	364	0.31	6.8
F20	145	0.23	7.9
F30	170	0.20	2-10
P20	185	0.20	4

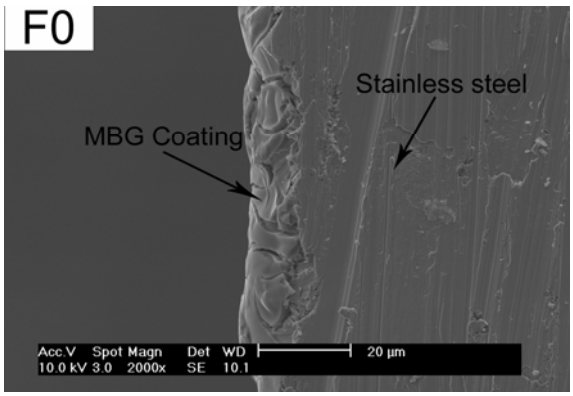

Figure S1. SEM image of the cross section of the MBG coating (The thickness of N0, F20, P20, N20, F30 and N30 were similar with F0, data not shown). Note that the cracks in the MBG coating occurred during the preparation of the cross section.

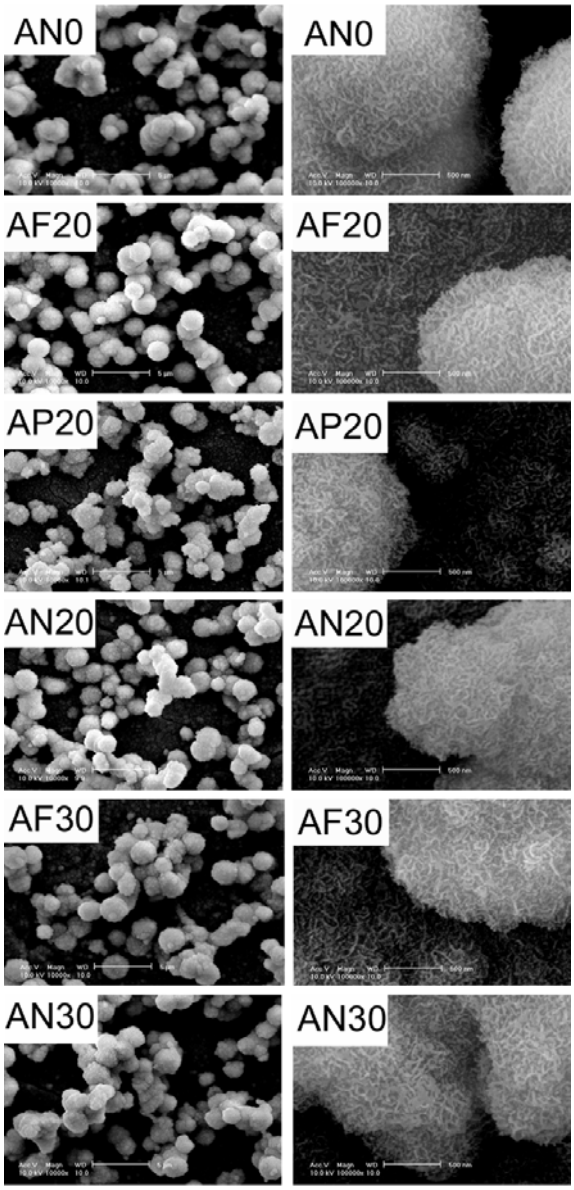

Figure S2. SEM micrograph of the AsMg-immobilized-MBG coatings

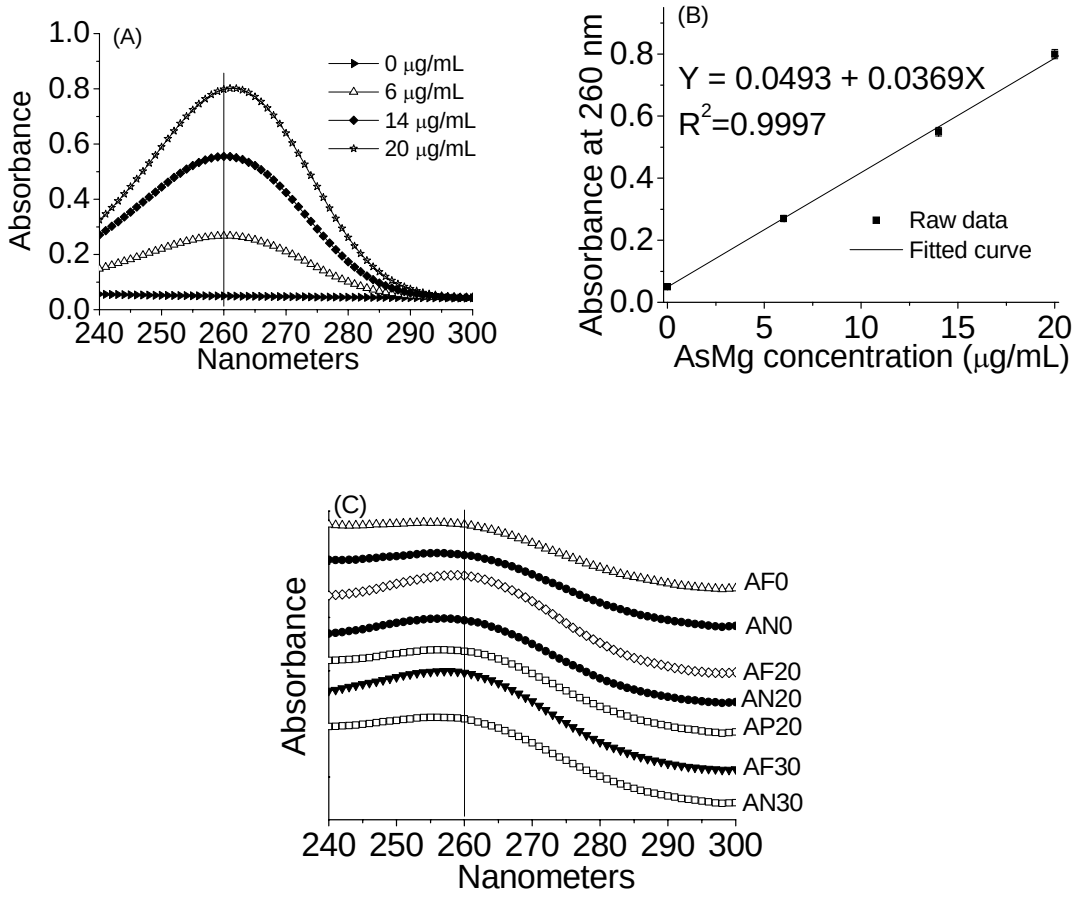

Figure S3. Absorbance curves of AsMg dissolved in 0.025 mM of citric acid (A); fitted curve between the AsMg concentration and absorbance at 260 nm (B); absorbance curves of the AsMg-MBG coatings dissolved in 0.025 mM of citric acid (C). The presence of absorbance peak at 260 nm proved the successful immobilization of AsMg in the AsMg-MBG coatings.

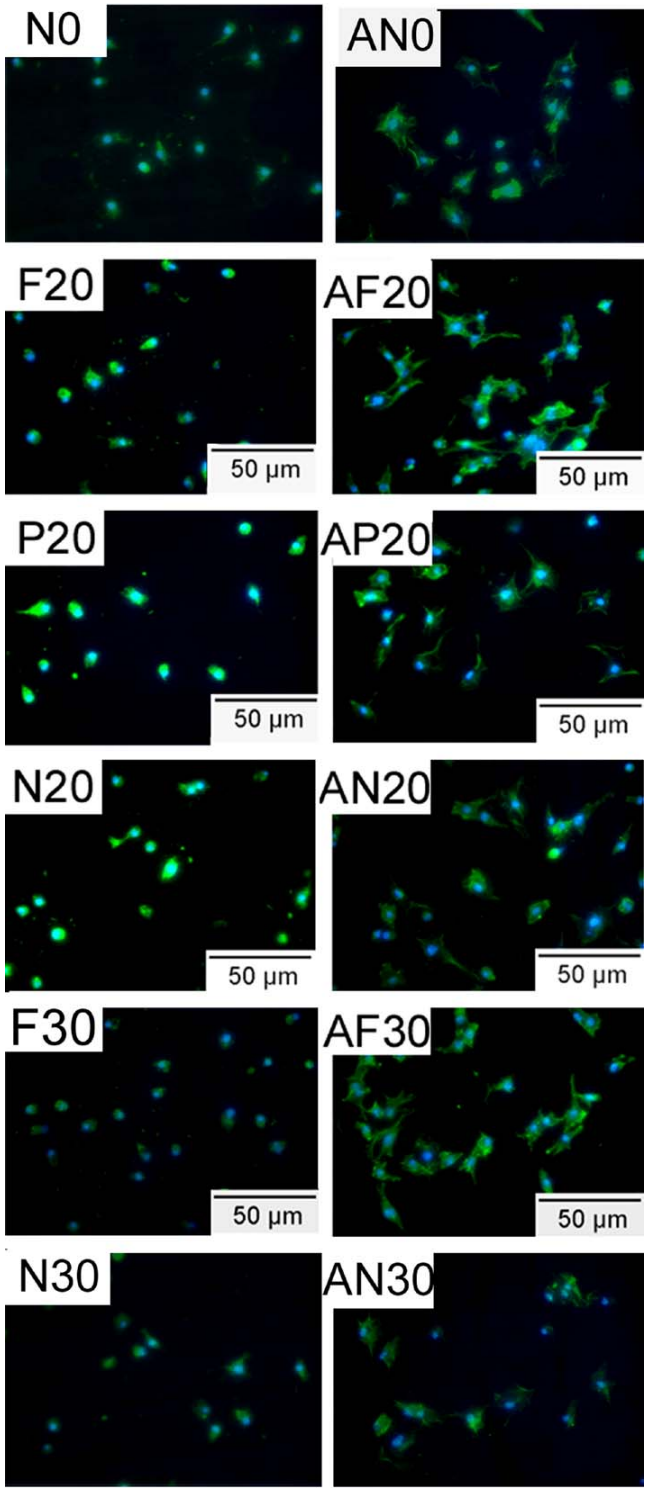

Figure S4. Fluorescent micrographs of F-actin labeled cytoskeleton of fibroblastNIH3T3 cells after 72 h of culture on the MBG (left row) and AsMg-immobilized-MBG coatings (right row)