Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supplementary Information

for

Presentation of Functional Groups on Self-Assembled Supramolecular Peptide Nanofibers Mimicking Glycosaminoglycans for Directed Mesenchymal Stem Cell Differentiation

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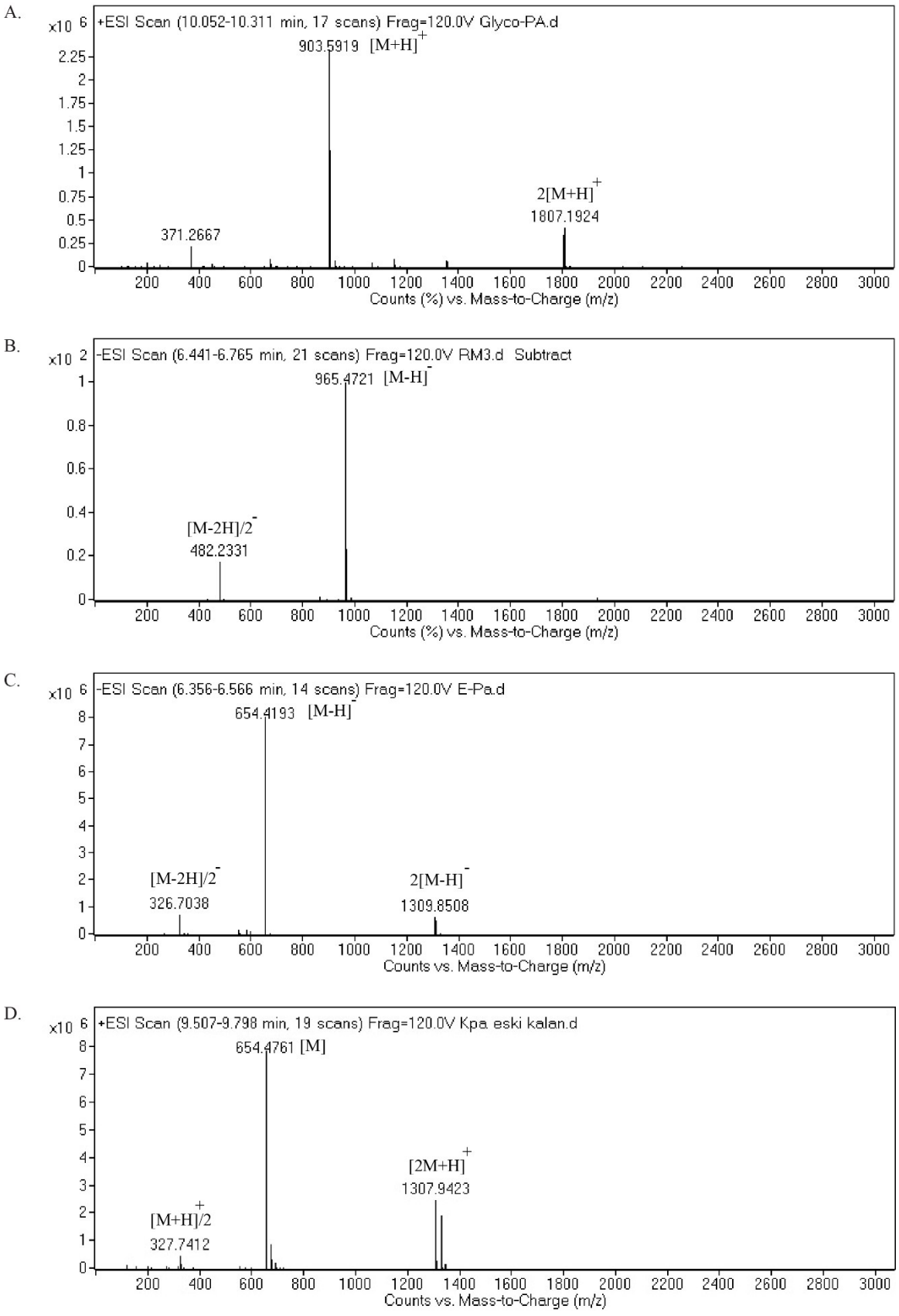

Figure S1 ESI mass spectra of: **A.** Glc-PA, **B.** SO_3-PA, **C.** E-PA, and **D.** K-PA.

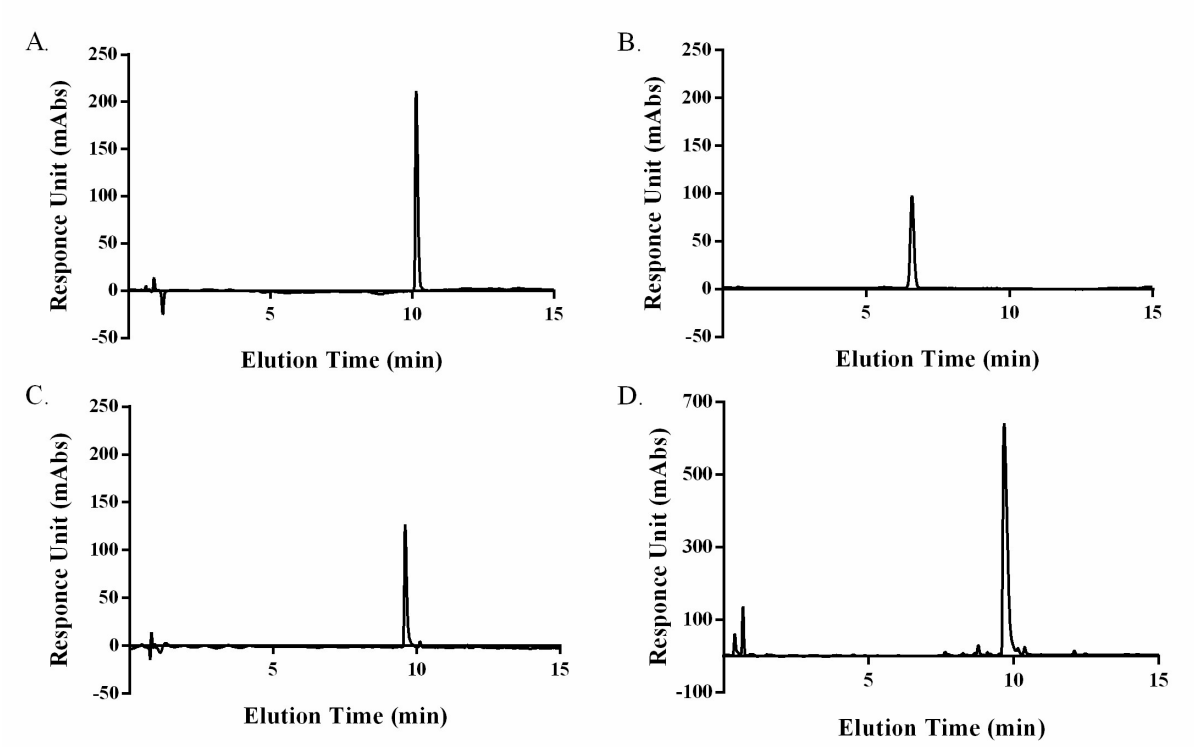

Figure S2 HPLC chromatogram of purified PAs at 220 nm: **A.** Glc-PA, **B.** SO_3-PA, **C.** E-PA, and **D.** K-PA.

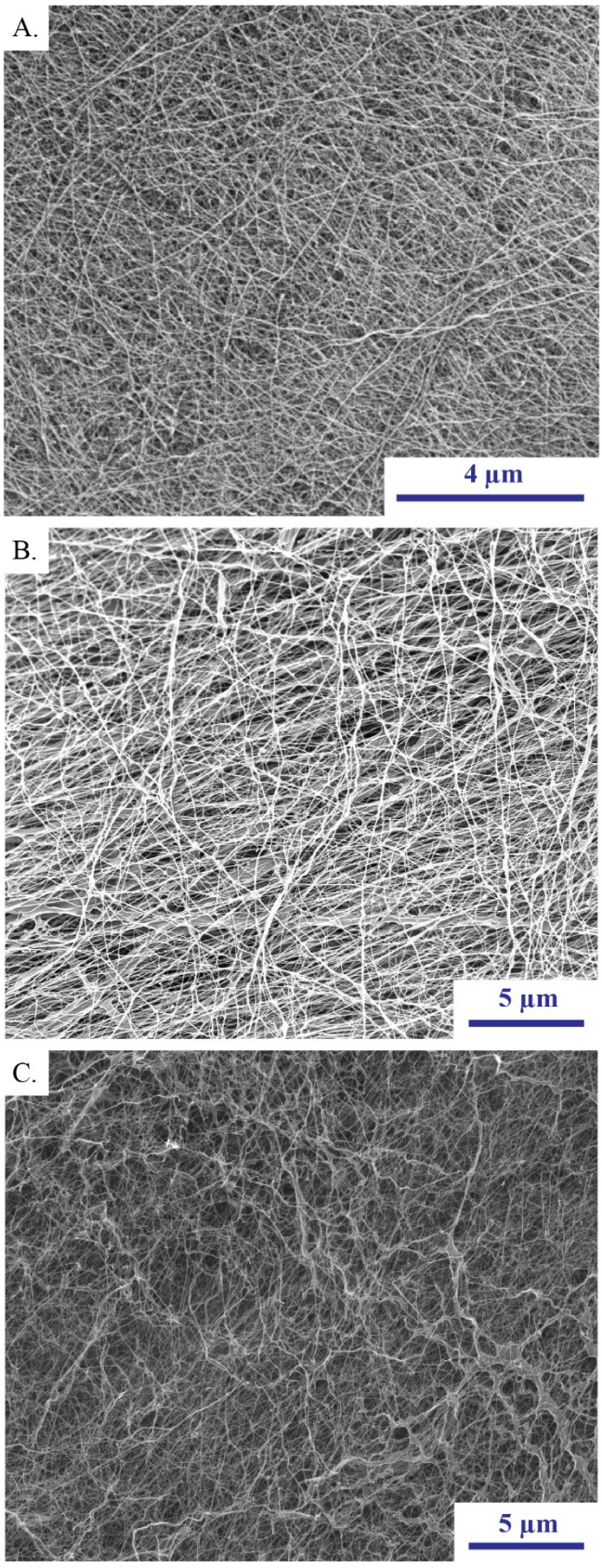

Figure S3 SEM images of **A.** Glc-PA/SO_3-PA, **B.** Glc-PA/E-PA/SO_3-PA, and **C.** K-PA/E-PA revealed the fibrous nature of the PA networks.

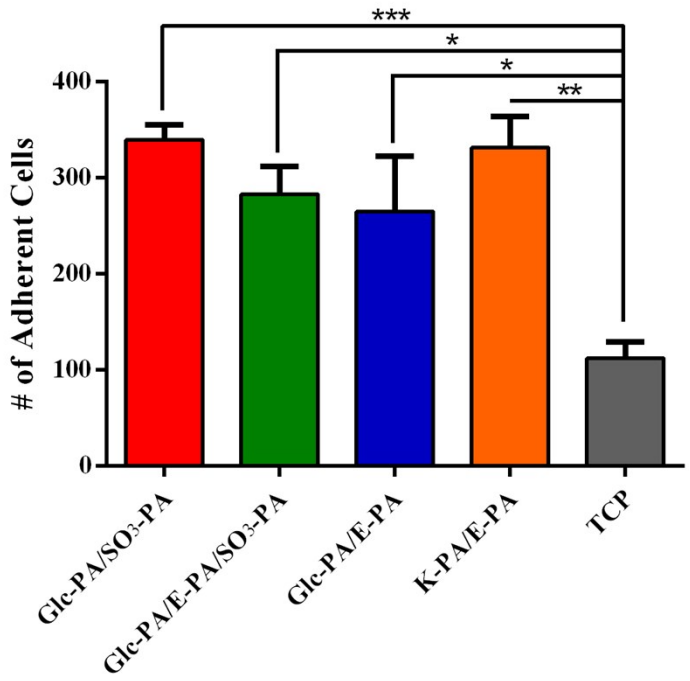

Figure S4 Cellular adhesion analyses of rat MSCs on PA nanofiber networks and uncoated TCP after 5 h. One-way ANOVA with Tukey post test was applied for analyzing the results and significant differences (*) as expressed $p < 0.05$. (n=5)

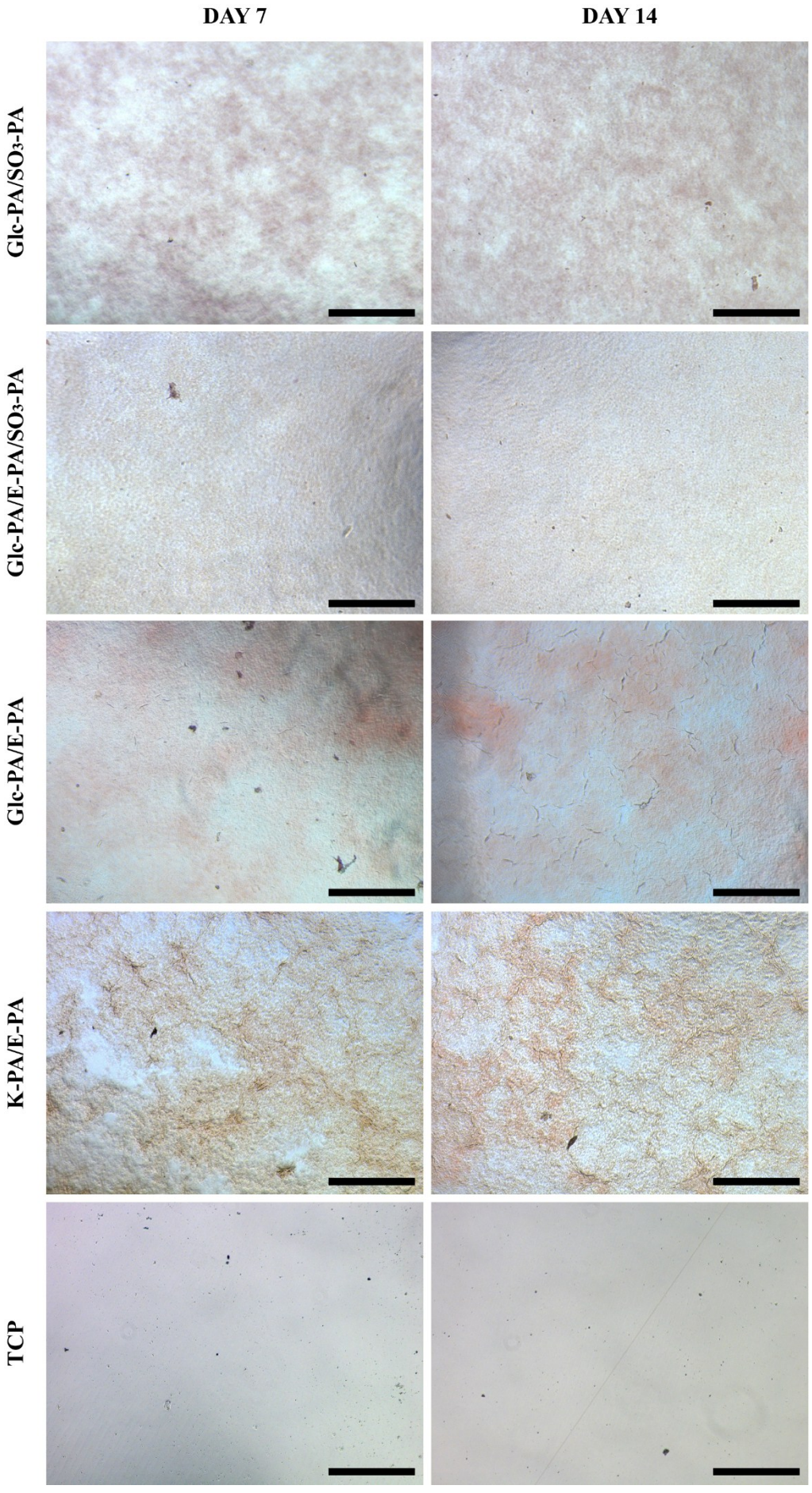
DAY 7
DAY 14
Glc-PA/SO3-PA
Glc-PA/E-PA/SO3-PA
Glc-PA/E-PA
K-PA/E-PA
TCP

Figure S5 Alizarin Red-S staining at day 7 and day 14 in growth medium without rat MSCs for analyzing non-specific calcium deposition on PA nanofiber networks. (Scale bars = 200 μm)

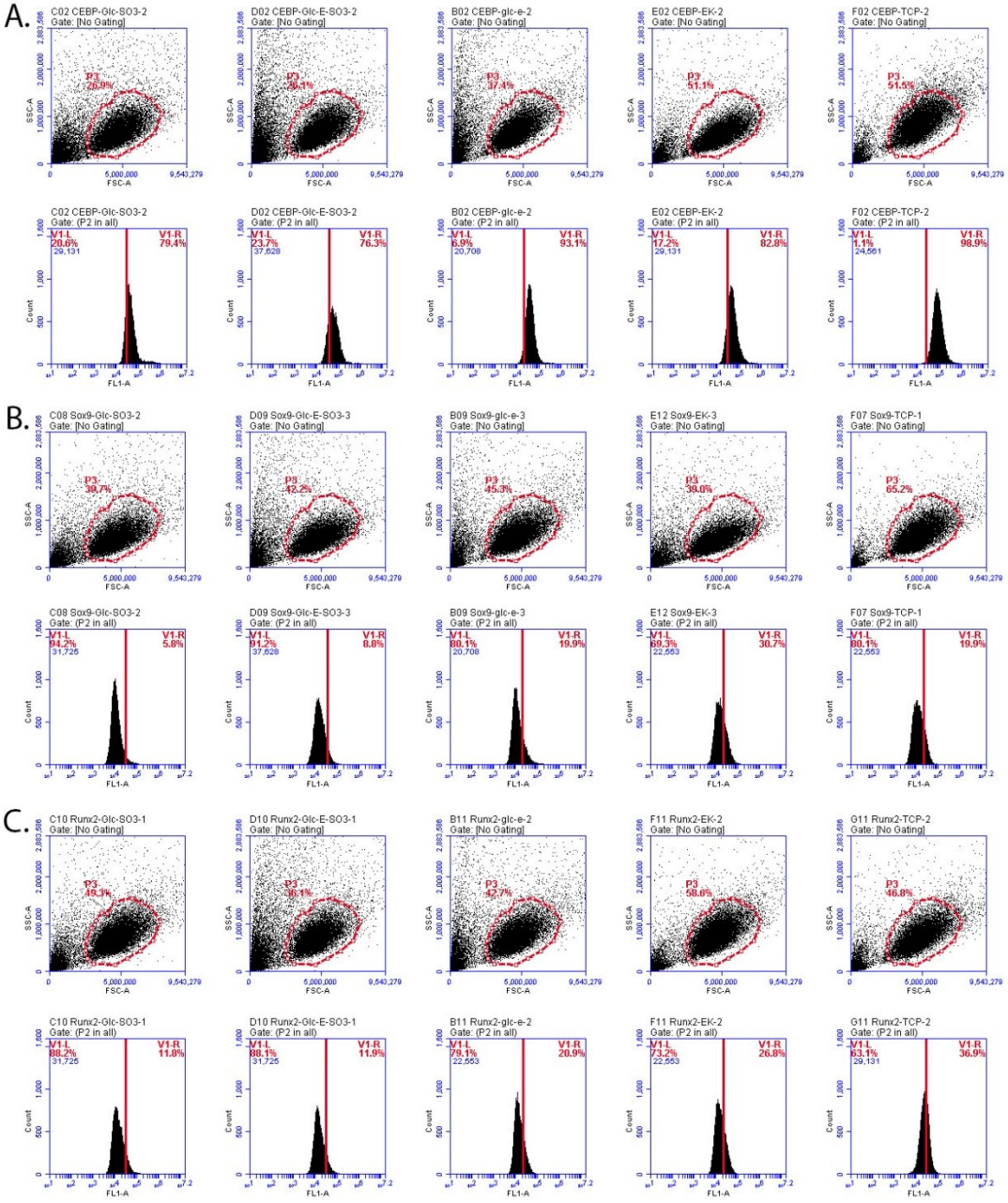

Figure S6 Day 3 cell population and fluorescence signaling, which include corresponding gating, are shown for A. C/EBP-α, B. Sox9, and C. Runx2 labeled cells cultured on various PA nanofiber networks and uncoated TCP. Gating is applied for subtracting isotype labeling from antibody labeled populations, and the percent of remaining part is considered specifically stained with the corresponding antibodies.

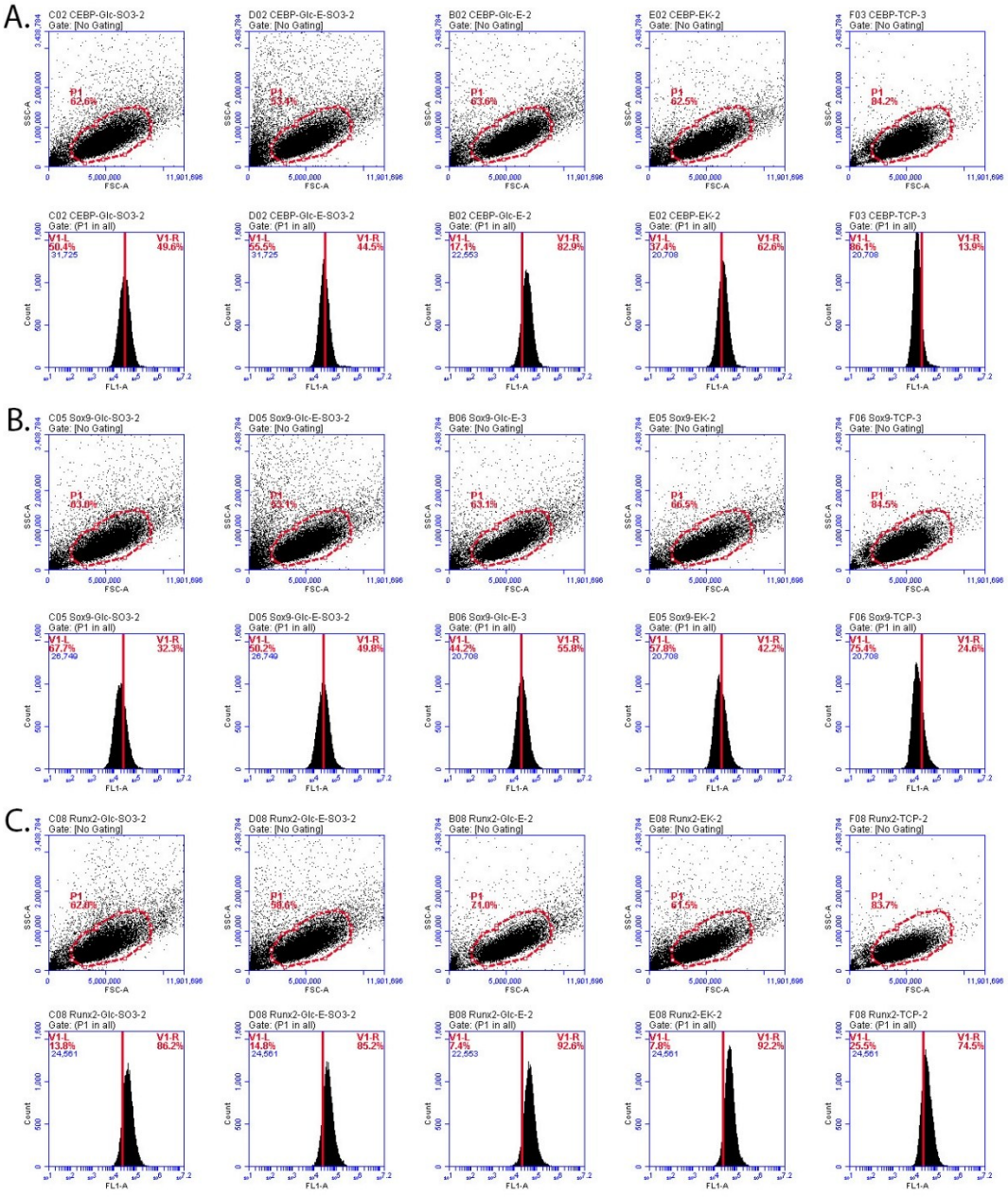

Figure S7 Day 7 cell population and fluorescence signaling, which include corresponding gating, are shown for A. C/EBP-α, B. Sox9, and C. Runx2 labeled cells cultured on various PA nanofiber networks and uncoated TCP. Gating is applied for subtracting isotype labeling from antibody labeled populations, and the percent of remaining part is considered specifically stained with the corresponding antibodies.