Supplementary information

Silk Nanofiber Hydrogels with Tunable Modulus to Regulate Nerve Stem Cell Fate

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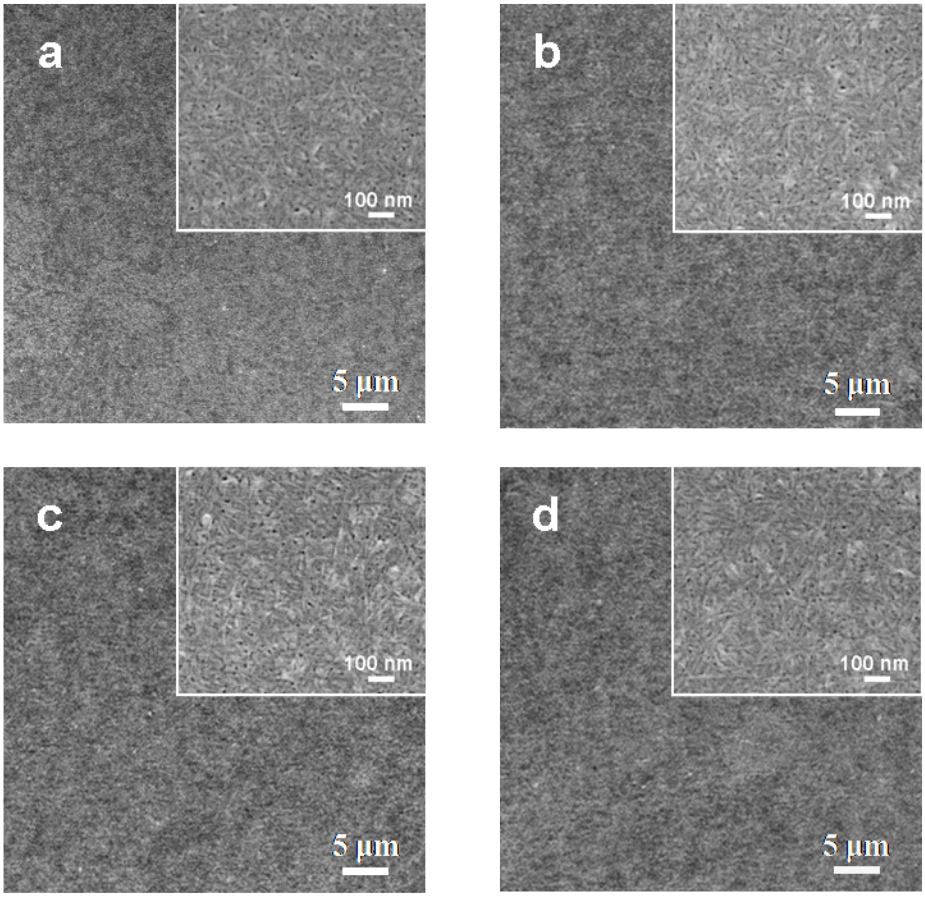

Fig. S1 SEM images of silk nanofiber films from hydrogels with different treatments. (a) silk nanofiber hydrogel, SN-H; (b) water-annealed silk nanofiber hydrogel, WA-SN-H; (c) 50% methanol-annealed silk nanofiber hydrogel, MA50-SN-H; (d) 80% methanol-annealed silk nanofiber hydrogel, MA80-SN-H.

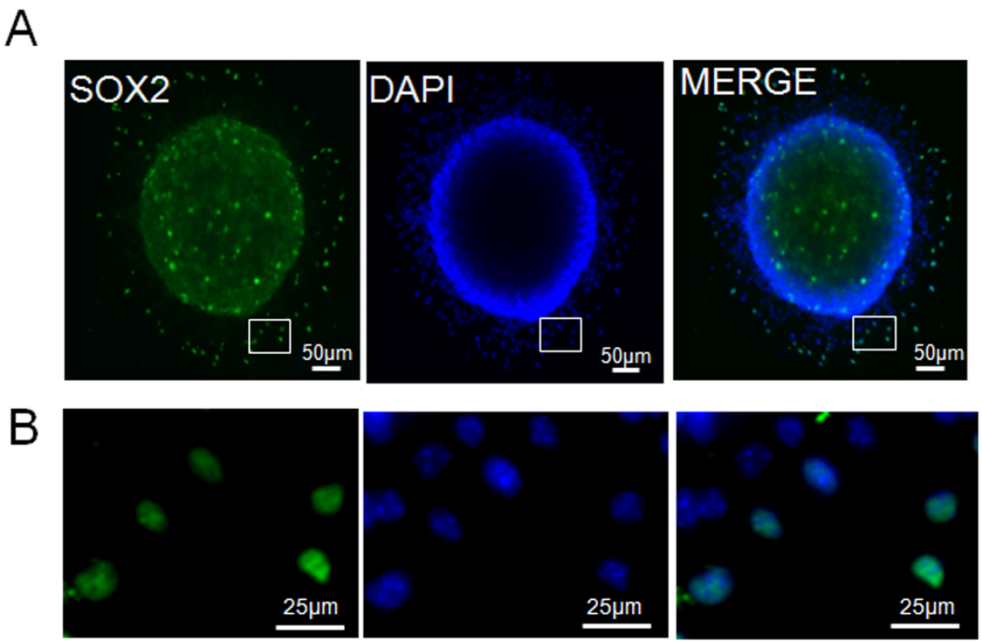

Fig. S2 Neurospheres cultured for 24 h under differentiation conditions were stained for SOX2 and DAPI (A). Scale bars: 50 μm. Images with higher magnification shown in (B). Scale bars: 25 μm.

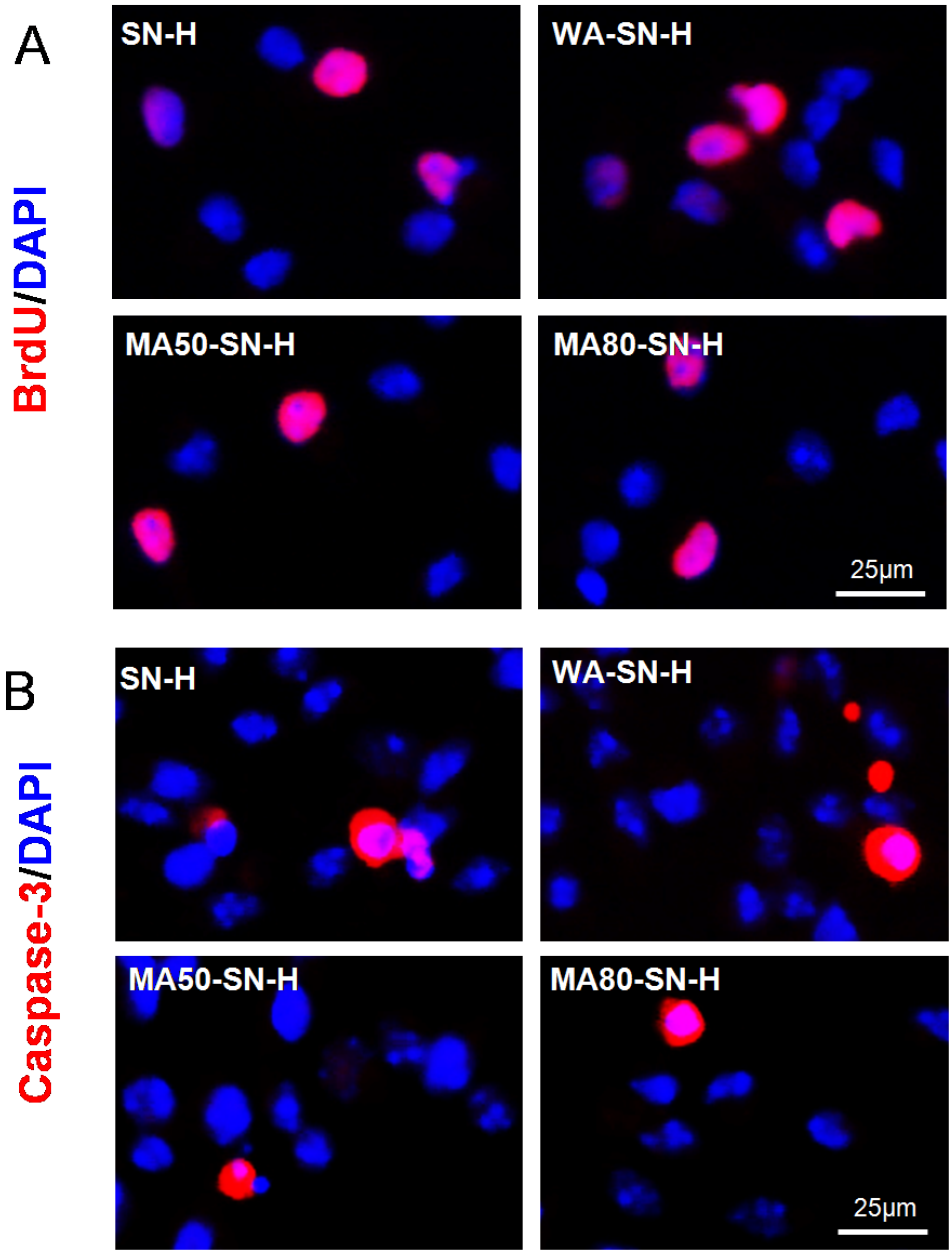

Fig. S3 The high magnification images of the proliferation and apoptosis of NSCs on silk nanofiber hydrogels (SN-H) with different mechanical properties. NSCs on silk nanofiber hydrogels with different mechanical properties were incorporated BrdU for 4 h and stained for BrdU and DAPI (A). NSCs on silk nanofiber hydrogels with different mechanical properties stained for active Caspase3 and DAPI (B).

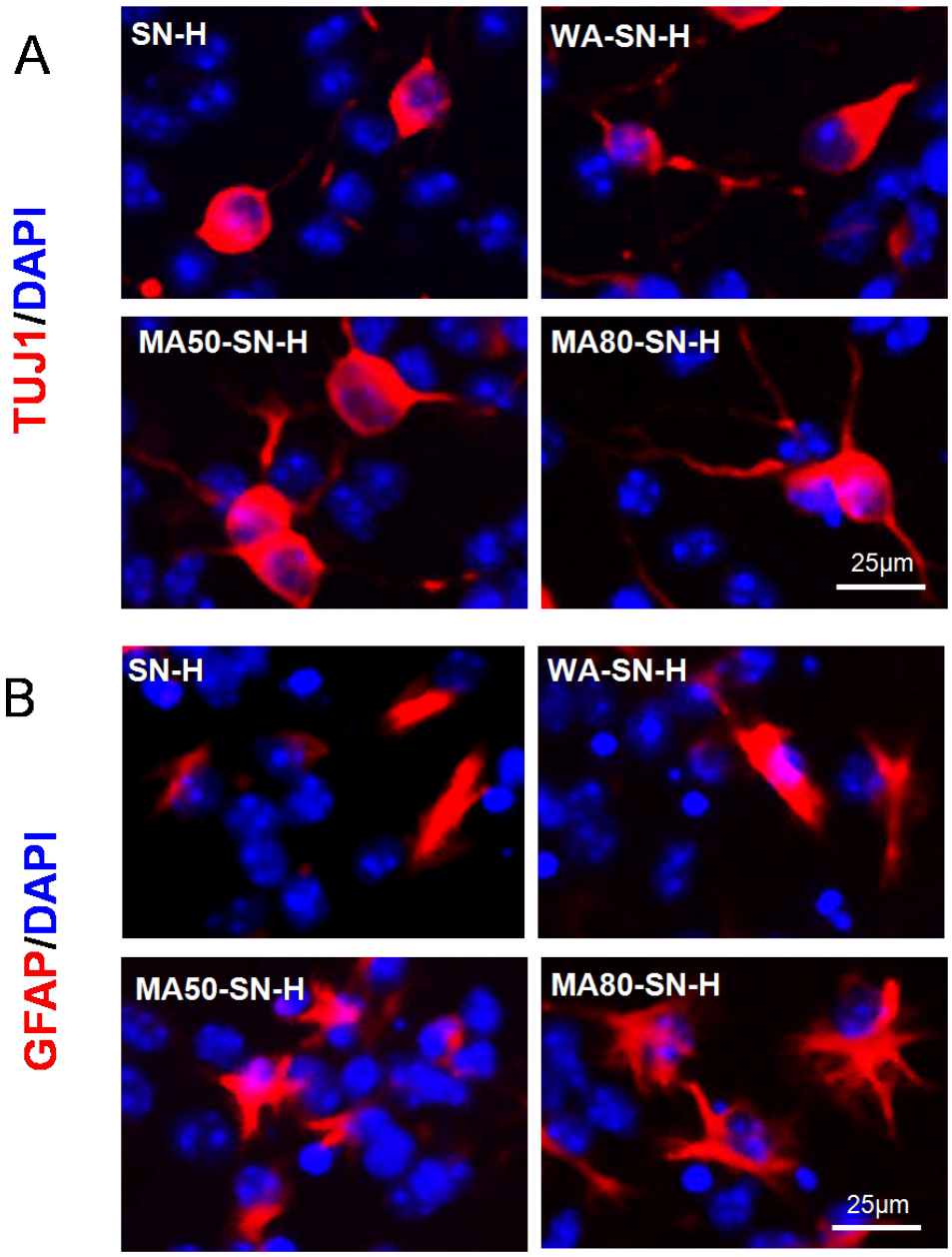

Fig. S4 The high magnification images of the differentiation of NSCs on silk nanofiber hydrogels (SN-H) with different mechanical properties. NSCs seeded on silk nanofiber hydrogels with different mechanical properties were cultured for 3~5 days *in vitro*. The cells were stained for TUJ1 (A) or GFAP (B) and DAPI.