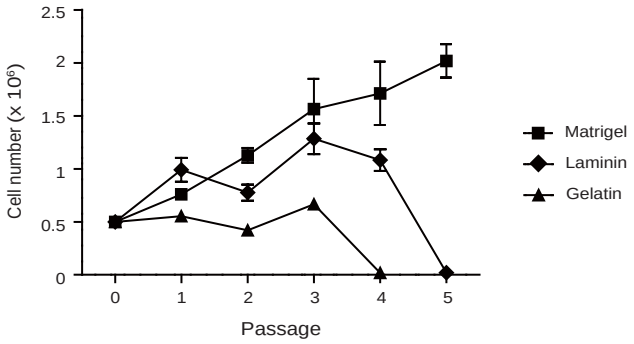
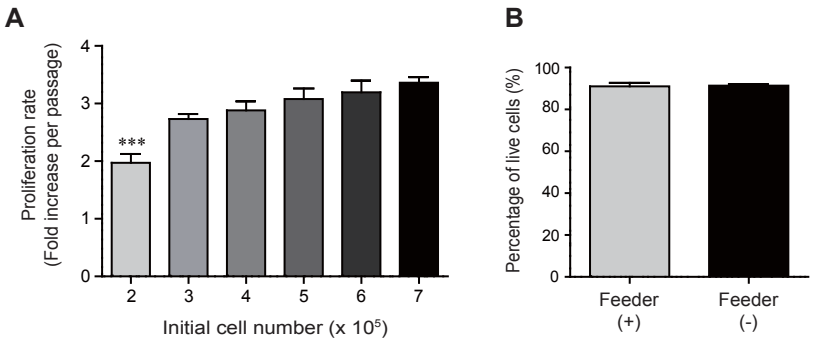
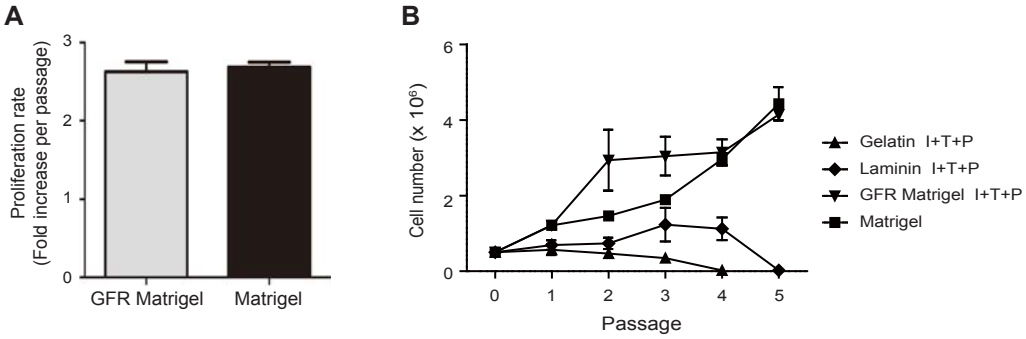


Supplementary figure 1. Comparison of SSC numbers on various extracellular matrixes. SSCs were plated at 5×10^5 cells/well in 12 well plates on Matrigel, Laminin and Gelatin, and the cell numbers was then counted at every subculture until 5 passages.



Supplementary figure 2. Cell number dependent SSC proliferation on Matrigel. (A) SSCs were plated at various cell number densities (2 - 7 × 10⁵ cells/well in 12 well plate) and the cell proliferation rate was then analyzed after 5 days of culture. (B) Percentage of live cell number in 5 × 10⁵ cells/well in 12 well plate on feeder or Matrigel. (*** : $P < 0.0004$)



Supplementary figure 3. SSCs cultured on growth factor reduced (GFR)-Matrigel and standard Matrigel. (A) Comparison of SSC proliferation rate between GFR-Matrigel and standard Matrigel. (B) Effects of various growth factors on Gelatin, Laminin and GFR Matrigel. SSCs were seed at 5×10^5 cells/well in 12-well plates on Gelatin, Laminin and GFR-Matrigel with insulin growth factor-1 (IGF-1), transforming growth factor beta (TGF-β) and platelet-derived growth factor (PDGF), and the cell numbers was then counted every subculture until 5 passages. I; IGF-1, T; TGF-β, P; PDGF.

Supplementary table 1. Sequences of primer sets used for the detection of SSC-speicific markers and bisulfite sequencing

Gene	Sequence	Reaction	Tm (℃)
Oct4	F-CTG AGG GCC AGG CAG GAG CAC GAG R-CTG TAG GGA GGG CTT CGG GCA CTT	RT-PCR	67
Nanog	F-AGG GTC TGC TAC TGA GAT GCT CTG R-CAA CCA CTG GTT TTT CTG CCA CCG	RT-PCR	58
Rex1	F-CAC CAT CCG GGA TGA AAG TGA GAT R-ACC AGA AAA TGT CGC TTT AGT TTC	RT-PCR	58
Esg1	F-ATA AGC TTG ATC TCG TCT TCC R-CTT GCT AGG ATG TAA CAA AGC	RT-PCR	51
Tex18	F-GGG GAG GGA GTA GTA CCT GTT T R-CCA CAC CCT GGA TAC TTC ACT T	RT-PCR	58
VASA	F-CTT GCA GAG ATG TTC AGC AGA C R-CTC CAA GAG CTT GCT CTC TCT C	RT-PCR	58
Dazl	F-GCA CTC AGT CTT CAT CAG CAA C R-CTA TCT TCT GCA CAT CCA CGT C	RT-PCR	58
Piwil2	F- CCT CCT GTA ACT GGG AAC TTG G R-GCA CCA CAA CAC CCT ACT ATG A	RT-PCR	58
Zfp145	F-TGC TGC CCA ACC ACA AGG R-CGC TGA ATG AGC CAG TAA AT	RT-PCR	58
β-actin	F-CGT GCG TGA CAT CAA AGA GAA GC R- ATC TGC TGG AAG GTG GAC AGT GAG	RT-PCR	58
H19 1st	F-TAA GGA GAT TAT GTT TTA TTT TTG GA R-CCC CCT AAT AAC ATT TAT AAC CCC	Bisulfite sequencing PCR	50
H19 2nd	F-AAG GAG ATT ATG TTT TAT TTT TGG A R-AAA CTT AAA TAA CCC ACA ACA TTA CC	Bisulfite sequencing PCR	50
Peg1 1st	F-TAG GGG TTT GTT TTG TTG TTT A R-AAC CTA TAA ATA TCT TCC CAT A	Bisulfite sequencing PCR	56
Peg1 2nd	F-GAT ATG ATA GAA AAT ATT TTG A R-TAA AAA TAC CAA CAC CTA AAA A	Bisulfite sequencing PCR	50
Igf2r 1st	F-GTA GAG TTT TTT GAA TTT TTT TGT T R-TAA ACT ATA ATT CTA ATT ATA CCA AAT TAC	Bisulfite sequencing PCR	50
Igf2r 2nd	F-TGG TAT TTT TAT GTA TAG TTA GGA TAG R-AAA AAT TCT ATA ATC AAA ACC AAC	Bisulfite sequencing PCR	50
Snrpn 1st	F-TAT GTA ATA TGA TAT AGT TTA GAA ATT AGT R-AAT AAA CCC AAA TCT AAA ATA TTT TAA TC	Bisulfite sequencing PCR	54
Snrpn 2nd	F-TAG AGG GAT AGA GAT TTT TGT ATT G R-ACT AAA ATC CAC AAA CCC AAC TAA C	Bisulfite sequencing PCR	54