

Supplemental Table 1 Primers used for quantitative RT-PCR

primer	Sequence	Product size (bp)
GAPDH forward	5'-GCCTCAAGATCAGCAAT-3'	310
GAPDH reversed	5'-AGGTCCACCACTGACACGTT-3'	
Chd11 forward	5'-GACCTGAGTTTGGGTGATG-3'	260
Chd1 reversed	5'-CGGATAAGTCGTTCCGGTA-3'	
Oct4 forward	5'-GGCGTTCTCTTTGGAAAGGTGTTC-3'	302
Oct4 reversed	5'-CTCGAACCACATCCTTCTCT-3'	
Nanog forward	5'-GCTGAGATGCCTCACACGGAG-3'	163
Nanog reversed	5'-TCTGTTTCTTGACTGGGACCTTGTC-3'	
Plzf forward	5'-GTGCCTCGCCATACCAGTGTAC-3'	262
Plzf reversed	5'-CCCCTTTTCTTTTCTGTTATTCTTTT-3'	
Gfra1 forward	5'-GATTACGGAAAGGATGGTCTCG-3'	348
Gfra1 reversed	5'-GTTTGGAATTAGCCCTGTAGCA-3'	
Bcl6b forward	5'-AAGCCGTATAAGTGTGAGACG-3'	257
Bcl6b reversed	5'-AGAATGTGGTAGTGCAC-3'	
Lhx1 forward	5'-TTCCCGCAGAACCTGAAGAT-3'	195
Lhx1 reversed	5'-CCCCAGAAATGCCAGATTAC-3'	
Etv5 forward	5'-AACTTGGTGCTTCATGCTCC-3'	281
Etv5 reversed	5'-ACTTAGCACCAAGAGCCTGC-3'	
Pou3f forward	5'-GGCACATTTATTCACCAAGACCAG-3'	159
Pou3f reversed	5'-TGTGGACCTCAGCAGCATTTGGAT-3'	

Taf4b forward	5'-CACTGCCCTTCCTAAACTCGG-3'	196
Taf4b reversed	5'-TTACTTGTGGTCTTGGCTCCTGT-3'	

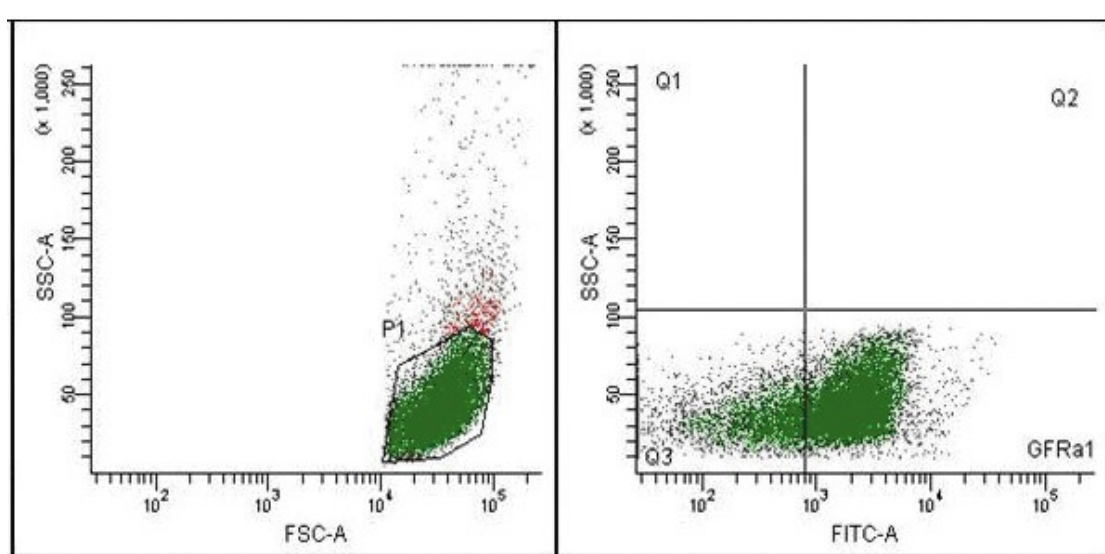
Note: All primers were designed with Beacon designer 2.

Supplemental Table 2 Antibodies used in experiment

Antibody	Specificity	Dilution	Company
CHD1L	Rabbit	1:50 / 1:300	Abcam
PLZF	mouse	1:100 / 1:500	Santa Cruz Biotechnology
GFRA1	mouse	1:100 / 1:500	Santa Cruz Biotechnology
β -actin	Rabbit	- / 1:1000	Santa Cruz Biotechnology
Goat anti-mouse IgG	Goat	1:200 / 1:5000	Santa Cruz Biotechnology
goat anti-rabbit IgG	Goat	1:200 / 1:5000	Santa Cruz Biotechnology
Alexa Fluor 488-conjugated goat anti-rabbit IgG	Goat	1:200 / -	Jackson Immuno Research
Alexa Fluor 594-conjugated goat anti-mouse IgG	Goat	1:200 / -	Jackson Immuno Research

Dilution (Immunostaining/Western Blot)

Supplemental Figure 1



Supplemental Figure legend

Figure. S1 Flow cytometric analysis of $GFR\alpha1$ expression $CD90^+$ SSCs. The undifferentiated spermatogonial stem cells were isolated from mouse testis at 5 dpp by using magnetic-activated cell sorting with $CD90$ conjugated microbeads. Isolated $CD90^+$ cells were subjected to flow cytometry analyses using antibody against $GFR\alpha1$ to examine $GFR\alpha1$ expression on $CD90^+$ SSCs. Left, $CD90^+$ cells were gated and counted (green dot). Right, $GFR\alpha1$ expression in $CD90^+$ SSCs.