

Supplementary Table 1: Multiple comparisons and exact significance values (*p*-values) for data presented in Figure 2A.

<i>Qkf</i> -GFP line 77	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	<0.0001		
GFP Medium	<0.0001	0.0008	
GFP Low	<0.0001	<0.0001	0.0536
<i>Qkf</i> -GFP line 92	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0049		
GFP Medium	0.0020	0.1905	
GFP Low	0.0013	0.0756	0.04630
<i>Qkf</i> -GFP line 151	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0003		
GFP Medium	<0.0001	0.1154	
GFP Low	<0.0001	0.0626	0.7523
<i>Qkf</i> -GFP line 197	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0026		
GFP Medium	0.0006	0.2857	
GFP Low	0.0003	0.1348	0.6174
<i>Qkf</i> -GFP line 217	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0003		
GFP Medium	<0.0001	0.1111	
GFP Low	<0.0001	0.0211	0.4132
<i>Qkf</i> -GFP line 227	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0116		
GFP Medium	0.0060	0.4147	
GFP Low	0.0038	0.1822	0.5208
<i>Qkf</i> -GFP line 238	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.1150		
GFP Medium	0.0037	0.0529	
GFP Low	0.0012	0.0142	0.4189

Data were analyzed using one-factorial analysis of variance (ANOVA) followed by Fisher's post-hoc test.

Supplementary Table 2: Multiple comparisons and exact p -values for data presented in Figure 2B.

	GFP High	GFP Medium High	GFP Medium Low	GFP low
GFP Medium High	<0.0001			
GFP Medium Low	<0.0001	0.0003		
GFP Low	<0.0001	<0.0001	0.1230	
Wild type (sorted)	<0.0001	0.3992	0.4329	0.1441

Data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 3: Multiple comparisons and exact *p*-values for data presented in Figure 2C.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	<0.0001		
GFP Medium Low	<0.0001	0.0013	
GFP Low	<0.0001	0.0002	0.1422

n = 3 *Qkf*-GFP sorts, 1 each from lines 151, 217, and 238; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 4: Multiple comparisons and exact *p*-values for data presented in Figure 2D.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.226		
GFP Medium Low	0.688	1.000	
GFP Low	0.208	0.003	0.009

Data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 5: Multiple comparisons and exact p -values for data presented in Figure 2E.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.383		
GFP Medium Low	0.403	1.000	
GFP Low	0.931	0.026	0.033

n = 4 *Qkf*-GFP SVZ sorts, 1 each from lines 92, 151, 197, and 238; data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 6: Multiple comparisons and exact *p*-values for data presented in Figure 2F.

	GFP High	GFP Medium High	GFP Medium Low	GFP low
GFP Medium High	<0.0001			
GFP Medium Low	<0.0001	0.0800		
GFP Low	<0.0001	0.0010	1.000	
Wild type (unsorted)	<0.0001	0.7710	1.000	1.000

Data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 7: Multiple comparisons and exact p -values for data presented in Figure 3C.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.092		
GFP Medium Low	0.001	0.344	
GFP Low	<0.0001	0.211	1.000

n = 7 *Qkf*-GFP sorts, 1 each from lines 92, 151, 197, 217, and 238, and 2 sorts from line 227; data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 8: Multiple comparisons and exact p -values for data presented in Figure 3D.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	<0.0001		
GFP Medium Low	<0.0001	<0.0001	
GFP Low	<0.0001	0.0483	0.8073

n = 4 *Qkf*-GFP SVZ sorts, 1 each from lines 92, 227, and 2 sorts from line 197; *Qkf*-GFP^{Hi} n = 583 neurospheres; *Qkf*-GFP^{MedHi} n = 546 neurospheres; *Qkf*-GFP^{MedLo} n = 233 neurospheres; *Qkf*-GFP^{Lo} n = 26 neurospheres; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 9: Multiple comparisons and exact *p*-values for data Figure 3E.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.5289		
GFP Medium Low	0.1641	0.4207	
GFP Low	0.0066	0.0219	0.0975

n = 4 *Qkf*-GFP sorts, 1 each from lines 92, and 197, and 2 sorts from lines 227; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 10: Multiple comparisons and exact p -values for data presented in Figure 3F.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	1.000		
GFP Medium Low	1.000	1.000	
GFP Low	0.896	0.418	0.137

n = 3 *Qkf*-GFP sorts, 1 each from lines 197, 217, and 238; data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 11: Multiple comparisons and exact p -values for data presented in Figure 3G.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.019		
GFP Medium Low	0.016	1.000	
GFP Low	1.000	0.117	0.094

n = 3 *Qkf*-GFP sorts, 1 each from lines 92, 197, and 238; data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 12: Multiple comparisons and exact p -values for data presented in Figure 4A.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.023		
GFP Medium Low	<0.0001	0.004	
GFP Low	<0.0001	<0.0001	0.169

n = 3 *Qkf*-GFP sorts, 1 each from lines 92, 217, and 227; data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 13: Multiple comparisons and exact p -values for data presented in Figure 4B.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.8040		
GFP Medium Low	<0.0001	<0.0001	
GFP Low	<0.0001	<0.0001	0.0992

n = 6 *Qkf*-GFP sorts, 1 each from lines 77 and 197, and 2 sorts from lines 151 and 227 each; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 14: Multiple comparisons and exact p -values for data presented in Figure 4C.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0102		
GFP Medium Low	<0.0001	0.0001	
GFP Low	<0.0001	<0.0001	0.6582

n = 3 *Qkf*-GFP sorts, 1 each from lines 151, 217, and 227; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 15: Multiple comparisons and exact p -values for data described in Figure 4D.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.0728		
GFP Medium Low	0.0149	0.3360	
GFP Low	0.0099	0.2296	0.7887

n = 3 *Qkf*-GFP sorts, 1 each from lines 77, 151, and 227; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 16: Multiple comparisons and exact p -values for data presented in Figure 4E.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	0.9065		
GFP Medium Low	0.0014	0.0016	
GFP Low	0.6911	0.7786	0.0023

n = 3 *Qkf*-GFP sorts, 1 each from lines 151, 217, and 227; data were analyzed using one-factorial ANOVA followed by Fisher's post-hoc test.

Supplementary Table 17: Multiple comparisons and exact p -values for data presented in Figure 4F.

	GFP High	GFP Medium High	GFP Medium Low
GFP Medium High	1.000		
GFP Medium Low	0.002	0.004	
GFP Low	0.924	0.425	<0.0001

n = 3 *Qkf*-GFP sorts, 1 each from lines 197, 227, and 238; data were analyzed using one-factorial ANOVA followed by Bonferroni's post-hoc test.

Supplementary Table 18: Summary of results showing correlation between high *Qkf*-GFP expression and neural stem cell characteristics.

	GFP High	GFP Medium High	GFP Medium Low	GFP Low
Bulk NSp Assay (per event)	4.42 ± 0.41%	1.59 ± 0.09%	0.49 ± 0.06%	0.034 ± 0.01%
Clonal NSp Assay	3.58 ± 0.08%	1.37 ± 0.23%	0.347 ± 0.17%	0.0 ± 0.0%
NSp formation (per live cell)	25.84 ± 2.39%	7.24 ± 0.40%	2.67 ± 0.33%	0.25 ± 0.09%
Passaging Ability	> 12 passages	> 12 passages	< 3 passages ¹	< 3 passages
Collagen assay² - NSC colonies	0.123 ± 0.030%	0.057 ± 0.019%	0.006 ± 0.002%	0.0 ± 0.0%
Primary NSp volume	0.96 ± 0.03 mm ³	0.61 ± 0.02 mm ³	0.41 ± 0.02 mm ³	0.38 ± 0.07 mm ³
Short-term BrdU^{Pos}	16.93 ± 3.35%	14.30 ± 4.47%	10.93 ± 0.98%	3.65 ± 0.76%
Ki67 positive	21.12 ± 3.11%	23.55 ± 3.41%	27.05 ± 4.09%	13.35 ± 3.07%
Long-term BrdU^{Pos}	10.03 ± 2.05%	2.85 ± 1.33%	2.60 ± 0.57%	7.89 ± 1.82%
GFAP^{Pos}	11.92 ± 0.36%	8.26 ± 0.49%	3.44 ± 1.07%	1.00 ± 0.39%
HSA^{Lo} staining	78.30 ± 5.75%	81.22 ± 4.69%	37.42 ± 4.17%	32.47 ± 7.95%
SSEA-1/LeX^{Pos}	50.00 ± 6.18%	34.93 ± 1.42%	4.30 ± 0.58%	2.23 ± 0.30%
CD133^{Pos}	7.00 ± 2.61%	3.31 ± 0.28%	1.21 ± 0.22%	0.69 ± 0.28%
PSA-NCAM^{Pos}	12.92 ± 3.10%	13.69 ± 2.42%	43.37 ± 4.95%	15.53 ± 6.38%
Nestin^{Pos}	11.64 ± 0.66%	12.96 ± 0.51	27.04 ± 5.05%	7.54 ± 2.08%
Differentiation Potential	All lineages	All lineages	Astrocytes and Neurons only	Astrocytes only

¹One culture lasted until passage 6, but had very few proliferating cells after passage 4.

²NeuroCult Collagen Colony Forming Assay (StemCell Technologies)

All data are represented as mean ± SEM; NSp = neurosphere.