Table S1. RT-PCR: primer sequences, cycling conditions and product size

Gene	Primer sequences (5'-3')	Conditions	Cycles	Size *(bp)*
Oct4	F: AGCCTGAGGGCGAAGCAGGA R: TGAGCCCCACATCGGCCTGT	30 sec, 96°C 30 sec, 61°C 60 sec, 72°C	35	228
Nanog	F: GCTGAGATGCCTCACACGGAG R: TCTGTTTCTTGACTGGGACCTTGTC	30 sec, 90°C 30 sec, 62°C 30 sec, 72°C	35	163
ABCG2	F: AGTTCCATGGCACTGGCCATA R: TCAGGTAGGCAATTGTGAGG	30 sec, 95°C 30 sec, 53°C 60 sec, 72°C	40	378
p63	F: GCAGTCGAGCACCGCCAAGT R: TCAAAGCAGCGTCGGCCCAG	30 sec, 95°C 30 sec, 53°C 60 sec, 72°C	35	476
ALDH1-A1	F: CGTTGGTTATGCTCATTTGGAAGA R: CTTTTGATCACGTCATCTAAAGAT	30 sec, 96°C 30 sec, 61°C 30 sec, 72°C	40	745
Tg	F: CTTCGAGTACCAGGTGGATGC R: GGTGGTTTCAGTGAAGGTGGA	30 sec, 96°C 30 sec, 58°C 30 sec, 72°C	35	762
PAX8	F: CGGACCCCGAAAGCACCTTCG R: CTAGAACTGGACACCTCGGGGGTT	30 sec, 95°C 60 sec, 60°C 60 sec, 72°C	30	303
TTF-1	F: GCCTCTGGCCCCGGATGGTA R: CCGCCTTGTCCTTGGCCTGG	30 sec, 96°C 60 sec, 60°C 60 sec, 72°C	35	351
GAPDH	F: GCCAAAAGGGTCATCATCTCTG R: CATGCCAGTGAGCTTCCCGT	30 sec, 96°C 60 sec, 58°C 30 sec, 72°C	25	347

F: Forward primer; R: Reverse primer

Table S2. Antibody list

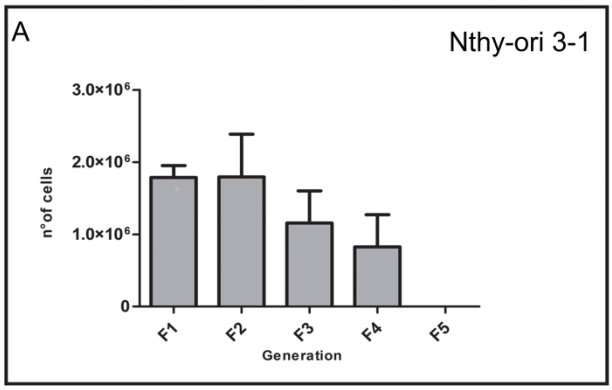
Antigen	Host	Class	Dilution	Company	Catalog Number
ABCG2	mouse	monoclonal	1:50 (IF)	Millipore	MAB4155
ALDH1-A1	rabbit	polyclonal	1:10000 (WB) 1:100 (IF)	Millipore, Temecula, CA, USA	ABD12
CD44	mouse	monoclonal	1:4000 (WB) 1:200 (IF)	ThermoScientific, Waltham, Massachusetts, USA	MA5-13890
CK19	mouse mouse	monoclonal monoclonal	1:500 (WB) A53-B/A2.26 prediluted (IHC)	Millipore Ventana, Tucson, USA	CBL198 760-4281
E-cadherin	mouse	monoclonal	1:500 (WB) 1:50 (IF)	Dako	M3612
Galectin-3 (9C4)	mouse	Monoclonal	prediluted (IHC)	Ventana	760-4256
GAPDH	mouse	monoclonal	1:1000 (WB)	Millipore	MAB374
HBME-1	mouse	monoclonal	1:25(IHC)	Abcam	ab2383
Ki67	mouse	monoclonal	1:150	Dako	M7240
Oct4	mouse	monoclonal	1:50 (IF)	Millipore	MAB4401
p63	mouse	monoclonal	1:500 (WB)	Millipore	MAB4135
ΔNp63	rabbit	polyclonal	1:500 (WB)	BioLegend, San Diego, CA	619001
p40	rabbit	polyclonal	1:100(IHC)	Millipore	PC373
Tg	rabbit	polyclonal	1:4000(IHC)	Dako	A0251
TTF-1	rabbit mouse	monoclonal monoclonal	1:500 (WB) 1:50 (IF) 1:200 (IHC)	Abcam Dako, Carpintera, USA	ab76013 M3575
Vimentin	rabbit	polyclonal	1:4000 (WB) 1:500 (IF)	ThermoScientific	PA5-27231

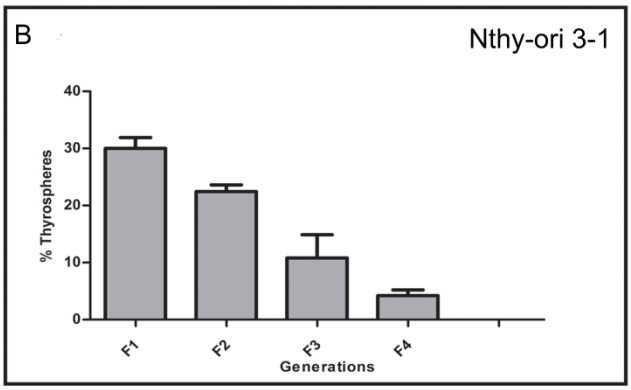
IF: immunofluorescent staining; IHC: Immunohistochemical staining: WB: Western blot

Supplementary figure 1

A) Self-renewal assay illustrating propagation of Nthy ori 3-1-derived thyrospheres. The graph shows the total number of cells (Y axis) for each generation after 7 days of culture in SFM (X axis).

B) Decline of Nthy ori 3-1 Sphere Forming Efficiency from F2 to F5. Data represent the means ± SD of three independent experiments.





Supplementary figure 2

A) Expression levels of stem cell markers mRNA in B-CPAP and Nthy ori 3-1 thyrospheres. B) Expression levels of thyroid differentiated markers mRNA in B-CPAP adherent (adhP) and thyrospheres (thyS) and in normal thyroid tissue (NT). Data represent the means ± SD of three independent experiments.