

Table S1. Summary of chimera formation efficiency of the *BCL2L1*- and *BCL2*-overexpression hESCs in pre-implantation mouse embryos.

Donor cell lines	No. of injected embryos	DOX treatment		Chimeric embryos developed <i>in vitro</i>	
		Cell culture	Embryo culture	No. of blastocysts (%)	No. of GFP-positive blastocysts (%)
BCL2L1-1	54	+	+	46 (85.2)	46 (100.0)
BCL2L1-2	35	+	+	30 (85.7)	26 (86.7)
BCL2-1	55	+	+	33 (62.3)	30 (90.9)
BCL2-3	62	+	+	53 (85.5)	50 (94.3)
Control-1*	27	+	-	22 (81.5)	12 (54.5)
Control-2*	35	-	-	15 (42.9)	2 (13.3)

* BCL2L1-1 hESCs were used as control.

Table S2. Primers used in the study.

primer name	5'-primer sequence-3'		
<i>NEO-F</i>	AAGATGGATTGCACGCAGGTTCTCC	Identification of virus integration	
<i>NEO-R</i>	AAGAAGGCGATAGAAGGCGATGCGC		
<i>BCL2-F</i>	ATCCAGCCTCCGCGGCCCGGCCACCATGGCGCACGCTGGGAGAACAGG	<i>BCL2/BCL2L1</i> overexpression vector construction	
<i>BCL2-R</i>	TTTGTTTGACCTTGTGGCCAGATAGGCACCC		
<i>BCL2-IRES-F</i>	GTGCCTATCTGGGCCACAAGGTCAAACAACTCTTAACTTTGATT		
<i>BCL2-IRES-R</i>	TATCGATAAGCTTGATATCGAATTTTGTAAATCCAGAGGTTGATTGTCG		
<i>BCL2L1-F</i>	GCCTCCGCGGCCCGGCCACCATGTCTCAGAGCAACCGGGAGCTGG		
<i>BCL2L1-R</i>	TTTCCGACTGAAGAGTGAGCCCAGC		
<i>BCL2L1-IRES-F</i>	CTCTTCAGTCGGAAAGTCAAACAACTCTTAACTTTGATT		
<i>BCL2L1-IRES-R</i>	ATAAGCTTGATATCGAATTTTGTAAATCCAGAGGTTGATTGTCG		
<i>AAVS1-sgRNA-F</i>	CACCGGGGCCACTAGGGACAGGAT		sgRNA sequence
<i>AAVS1-sgRNA-R</i>	AAACATCCTGTCCCTAGTGGCCCC		
hMitochondria-F	AATATTAACACAACTACCACCTACCT	Human cell contribution	
hMitochondria-R	TGGTTCTCAGGGTTTGTATAA		

<i>UCNE-F</i>	AACAATGGGTTTCAGCTGCTT	assay
<i>UCNE-R</i>	CCCAGGCGTATTTTTGTTCT	
<i>OCT4-F</i>	CTTGAATCCCGAATGGAAAGGG	Real-time PCR
<i>OCT4-R</i>	GTGTATATCCCAGGGTGATCCTC	
<i>NANOG-F</i>	TTTGTGGGCCTGAAGAAACT	
<i>NANOG-R</i>	AGGGCTGTCCTGAATAAGCAG	
<i>SOX2-F</i>	GCCGAGTGGAACTTTTGTCG	
<i>SOX2-R</i>	GGCAGCGTGTACTTATCCTTCT	
<i>SOX17-F</i>	GTGGACCGCACGGAATTTG	
<i>SOX17-R</i>	GGAGATTCACACCGGAGTCA	
<i>CXCR4-F</i>	ACTACACCGAGGAAATGGGCT	
<i>CXCR4-R</i>	CCCACAATGCCAGTTAAGAAGA	
<i>T-F</i>	TATGAGCCTCGAATCCACATAGT	
<i>T-R</i>	CCTCGTTCTGATAAGCAGTCAC	
<i>PDGFRA-F</i>	TGGCAGTACCCCATGTCTGAA	
<i>PDGFRA-R</i>	CCAAGACCGTCACAAAAGGC	

<i>SOX1-F</i>	CAGTACAGCCCCATCTCCAAC	
<i>SOX1-R</i>	GCGGGCAAGTACATGCTGA	
<i>PAX6-F</i>	TGGGCAGGTATTACGAGACTG	
<i>PAX6-R</i>	ACTCCCGCTTATACTGGGCTA	