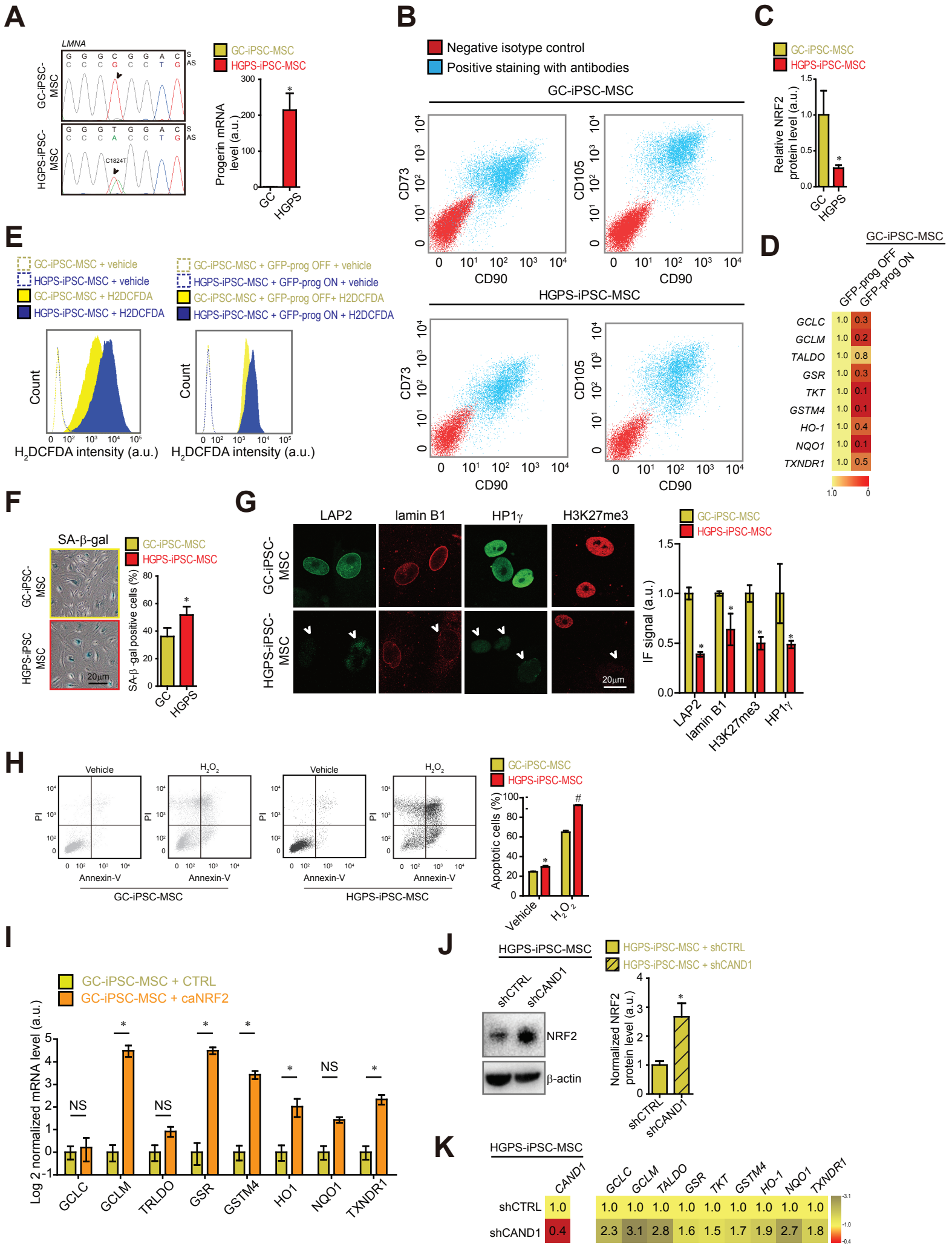
Figure S6


A
LMNA
GC-iPSC-MSC
HGPS-iPSC-MSC
C1824T
GC-iPSC-MSC
HGPS-iPSC-MSC
Progerin mRNA level (a.u.)
GC
HGPS
B
Negative isotype control
Positive staining with antibodies
GC-iPSC-MSC
HGPS-iPSC-MSC
CD73
CD105
CD90
C
GC-iPSC-MSC
HGPS-iPSC-MSC
Relative NRF2 protein level (a.u.)
GC
HGPS
D
GC-iPSC-MSC
GFP-prog OFF
GFP-prog ON
GCLC 1.0 0.3
GCLM 1.0 0.2
TALDO 1.0 0.8
GSR 1.0 0.3
TKT 1.0 0.1
GSTM4 1.0 0.1
HO-1 1.0 0.4
NQO1 1.0 0.1
TXNDR1 1.0 0.5
E
GC-iPSC-MSC + vehicle
HGPS-iPSC-MSC + vehicle
GC-iPSC-MSC + H2DCFDA
HGPS-iPSC-MSC + H2DCFDA
GC-iPSC-MSC + GFP-prog OFF + vehicle
HGPS-iPSC-MSC + GFP-prog ON + vehicle
GC-iPSC-MSC + GFP-prog OFF+ H2DCFDA
HGPS-iPSC-MSC + GFP-prog ON + H2DCFDA
Count
H2DCFDA intensity (a.u.)
F
SA-β-gal
GC-iPSC-MSC
HGPS-iPSC-MSC
20μm
SA-β-gal positive cells (%)
GC
HGPS
G
LAP2
lamin B1
HP1γ
H3K27me3
GC-iPSC-MSC
HGPS-iPSC-MSC
20μm
IF signal (a.u.)
H
Vehicle
H2O2
PI
Annexin-V
GC-iPSC-MSC
HGPS-iPSC-MSC
Apoptotic cells (%)
I
GC-iPSC-MSC + CTRL
GC-iPSC-MSC + caNRF2
Log 2 normalized mRNA level (a.u.)
NS
GCLC
GCLM
TRLDO
GSR
GSTM4
HO1
NQO1
TXNDR1
J
HGPS-iPSC-MSC
shCTRL
shCAND1
NRF2
β-actin
HGPS-iPSC-MSC + shCTRL
HGPS-iPSC-MSC + shCAND1
Normalized NRF2 protein level (a.u.)
K
HGPS-iPSC-MSC
CAND1
GCLC GCLM TALDO GSR TKT GSTM4 HO-1 NQO1 TXNDR1
shCTRL 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
shCAND1 0.4 2.3 3.1 2.8 1.6 1.5 1.7 1.9 2.7 1.8