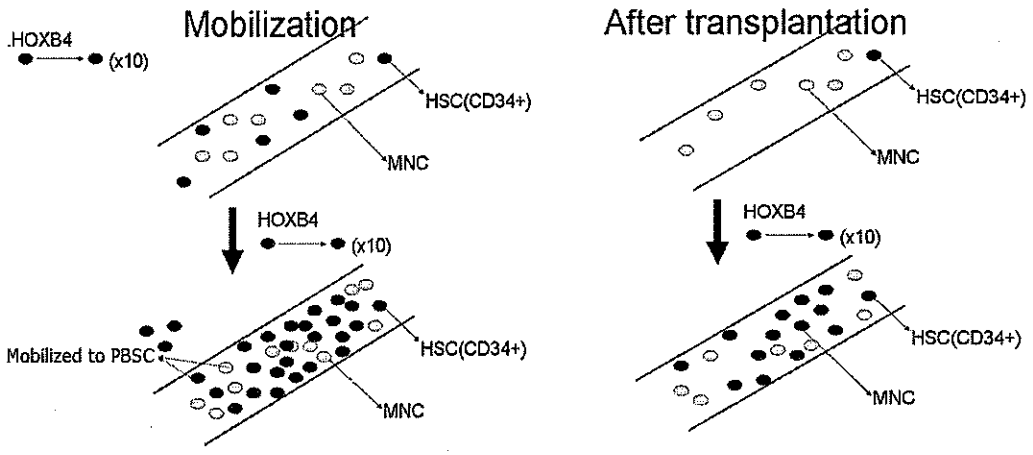

HOXB4
(x10)
Mobilization
HSC(CD34+)
MNC
HOXB4
(x10)
Mobilized to PBSC
HSC(CD34+)
MNC
After transplantation
HSC(CD34+)
MNC
HOXB4
(x10)
HSC(CD34+)
MNC

Figure 1

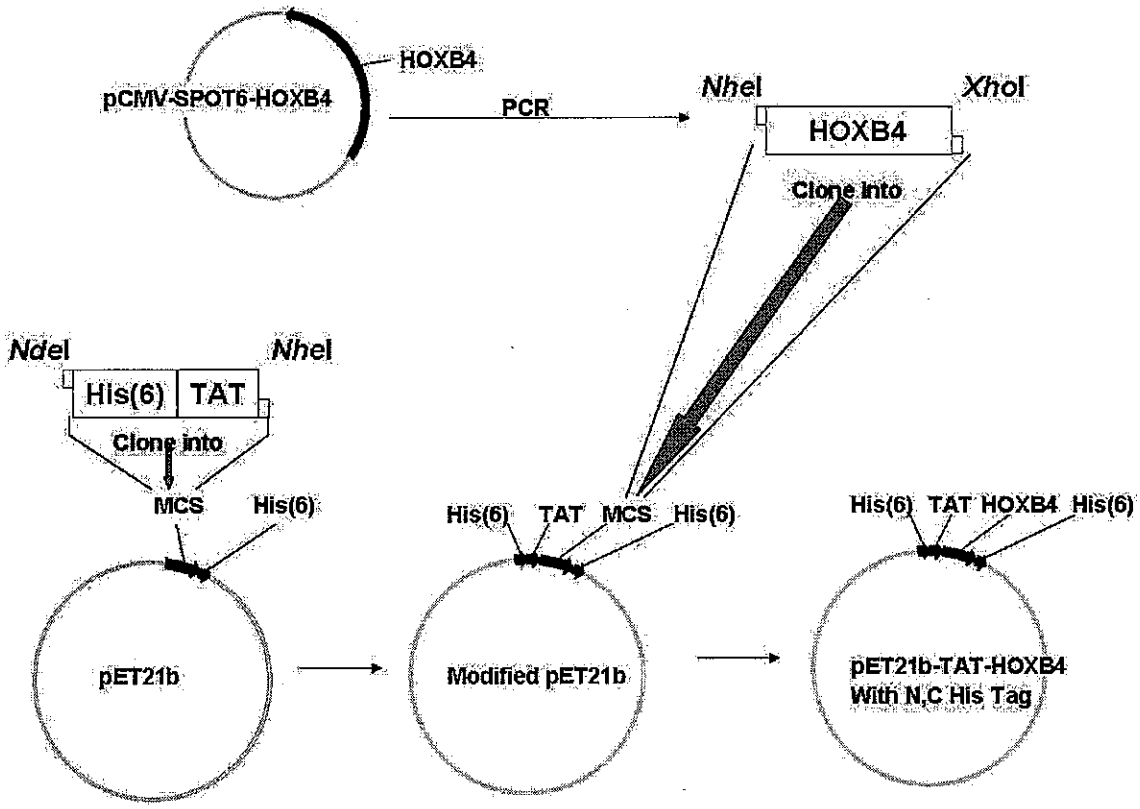

pCMV-SPOT6-HOXB4
HOXB4
PCR
NheI
XhoI
HOXB4
Clone into
NdeI
NheI
His(6)
TAT
Clone into
MCS
His(6)
pET21b
His(6)
TAT
MCS
His(6)
Modified pET21b
His(6)
TAT
HOXB4
His(6)
pET21b-TAT-HOXB4
With N,C His Tag

Figure 2

pTAT-HOXB4H Sequence

His **TAT** ***Nhe*I**

ATG**CACCACCACCACCACCAC**TACGGCCGCAAGAAACGCCGCCAGCGCCGCCGC**GCTAGC**

ATGGCTATGAGTTCTTTTTTGATCAACTCAAACTATGTCGACCCCAAGTTCCCTCCATGCGAG

GAATATTCACAGAGCGATTACCTACCCAGCGACCACTCGCCCGGGTACTACGCCGGCGGCC

AGAGGCGAGAGAGCAGCTTCCAGCCGGAGGCGGGCTTCGGGCGGCGCGCGGCGTGCACC

GTGCAGCGCTACGCGGCCTGCCGGGACCCTGGGCCCCCGCCGCCTCCGCCACCACCCCCG

CCGCCCCCGCCACCGCCCGGTCTGTCCCCTCGGGCTCCTGCGCCGCCACCCGCCGGGGCC

CTCCTCCCGGAGCCCGGCCAGCGCTGCGAGGCGGTCAGCAGCAGCCCCCCGCCGCCTCCC

TGCGCCCAGAACCCCCTGCACCCCAGCCCGTCCCACTCCGCGTGCAAAGAGCCCGTCGTCT

ACCCCTGGATGCGCAAAGTTCACGTGAGCACGGTAAACCCCAATTACGCCGGCGGGGAGCC

CAAGCGCTCTCGGACCGCCTACACGCGCCAGCAGGTCTTGGAGCTGGAGAAGGAATTTCAC

TACAACCGCTACCTGACACGGCGCCGGAGGGTGGAGATCGCCCACGCGCTCTGCCTCTCCG

AGCGCCAGATCAAGATCTGGTTCCAGAACCGGCGCATGAAGTGGAAAAAAGACCACAAGTTG

CCCAACACCAAGATCCGCTCGGGTGGTGCGGCAGGCTCAGCCGGAGGGCCCCCTGGCCGG

CCCAATGGAGGCCCCCGCGCGCTCCTCGAG**CACCACCACCACCACCAC**TGA

His

HOXB4

Figure 3

TAT-HOXB4H Protein Sequence

TAT

MHHHHHHYGRKKRRQRRRASMAMSSFLINSNYVDPKFPPCEEYSQSDY

LPSDHSPGYYAGGQRRESSFQPEAGFGRRAACTVQRYAACRDPGPPPP

PPPPPPPPPPPGLSPRAPAPPPAGALLPEPGQRCEAVSSSPPPPPCAQN **HOXB4**

PLHPSPSHSACKEPVVYPWMRKVHVSTVNPNYAGGEPKRSRTAYTRQQ

VLELEKEFHYNRYLTRRRRVEIAHALCLSERQIKIWFQNRRMKWKKDHKL

PNTKIRSGGAAGSAGGPPGRPNGGPRALLEHHHHHH

Figure 4

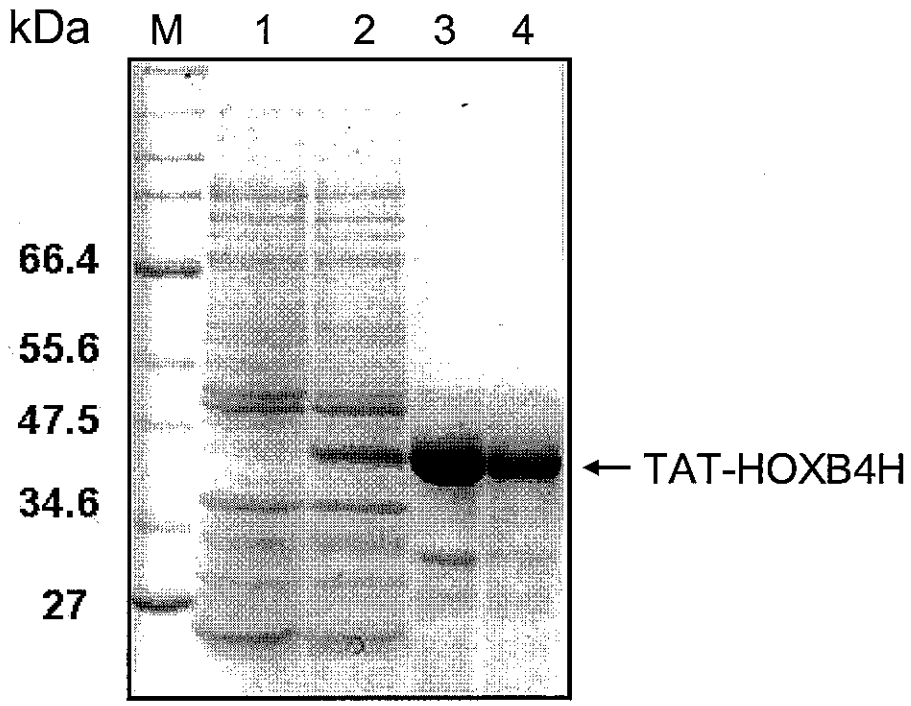


Figure 5

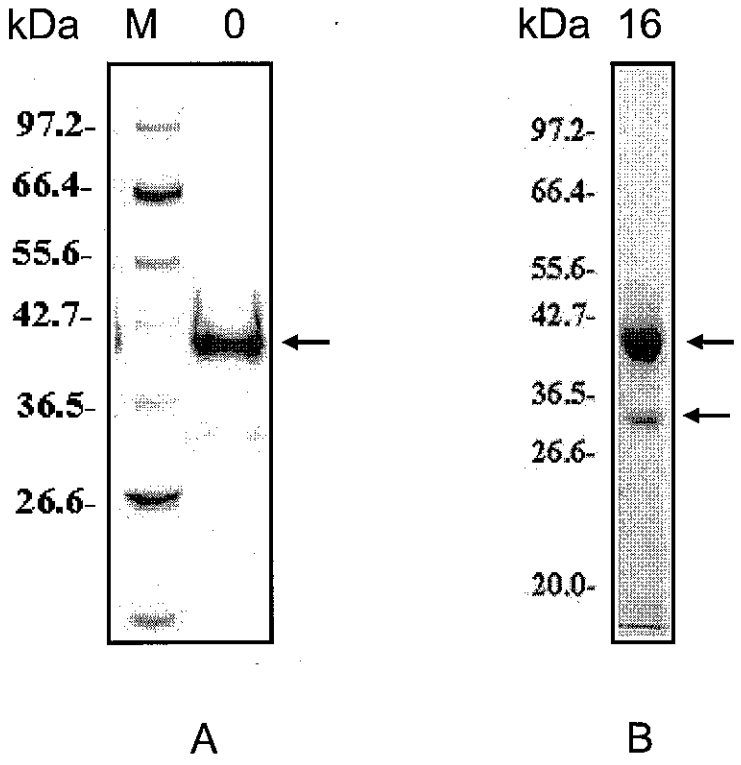

kDa
M
0
97.2-
66.4-
55.6-
42.7-
36.5-
26.6-
A
kDa
16
97.2-
66.4-
55.6-
42.7-
36.5-
26.6-
20.0-
B

Figure 6

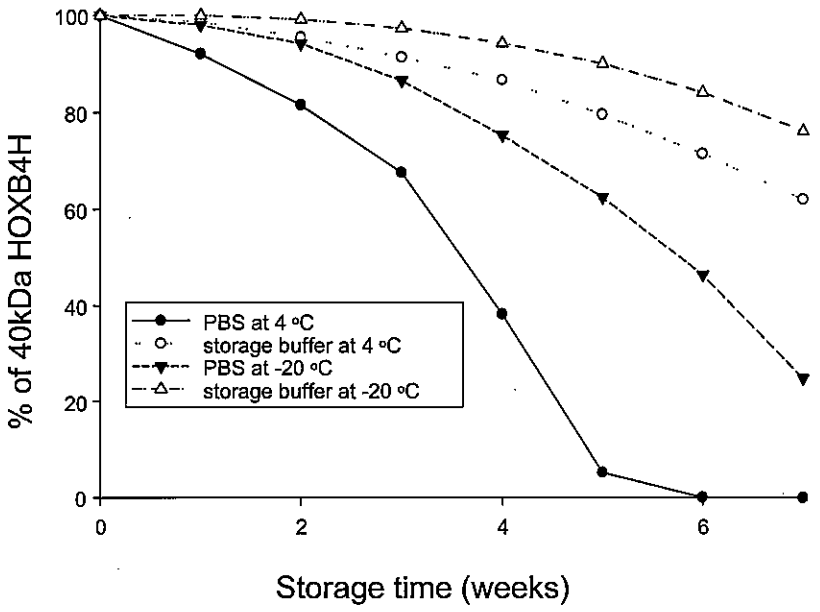
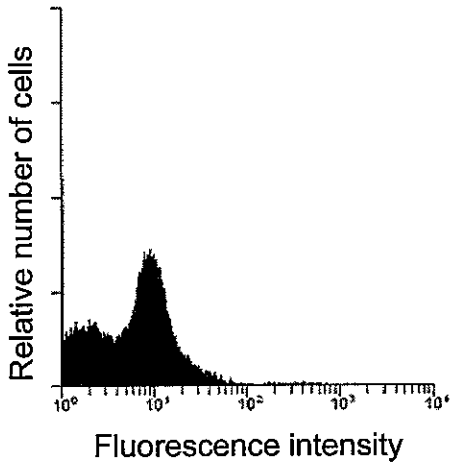
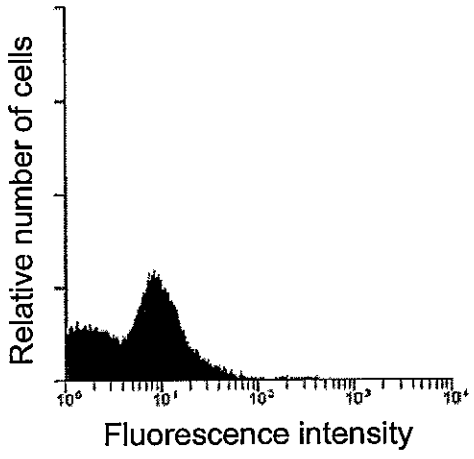

100
80
60
40
20
0
% of 40kDa HOXB4H
0
2
4
6
Storage time (weeks)
PBS at 4 °C
storage buffer at 4 °C
PBS at -20 °C
storage buffer at -20 °C

Figure 7

A


Relative number of cells
Fluorescence intensity

B


Relative number of cells
Fluorescence intensity

C

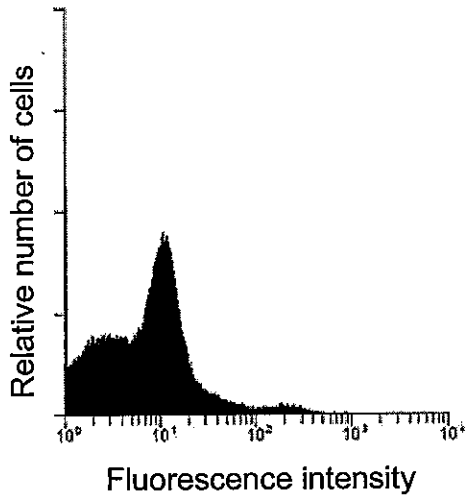

Relative number of cells
Fluorescence intensity

Figure 8

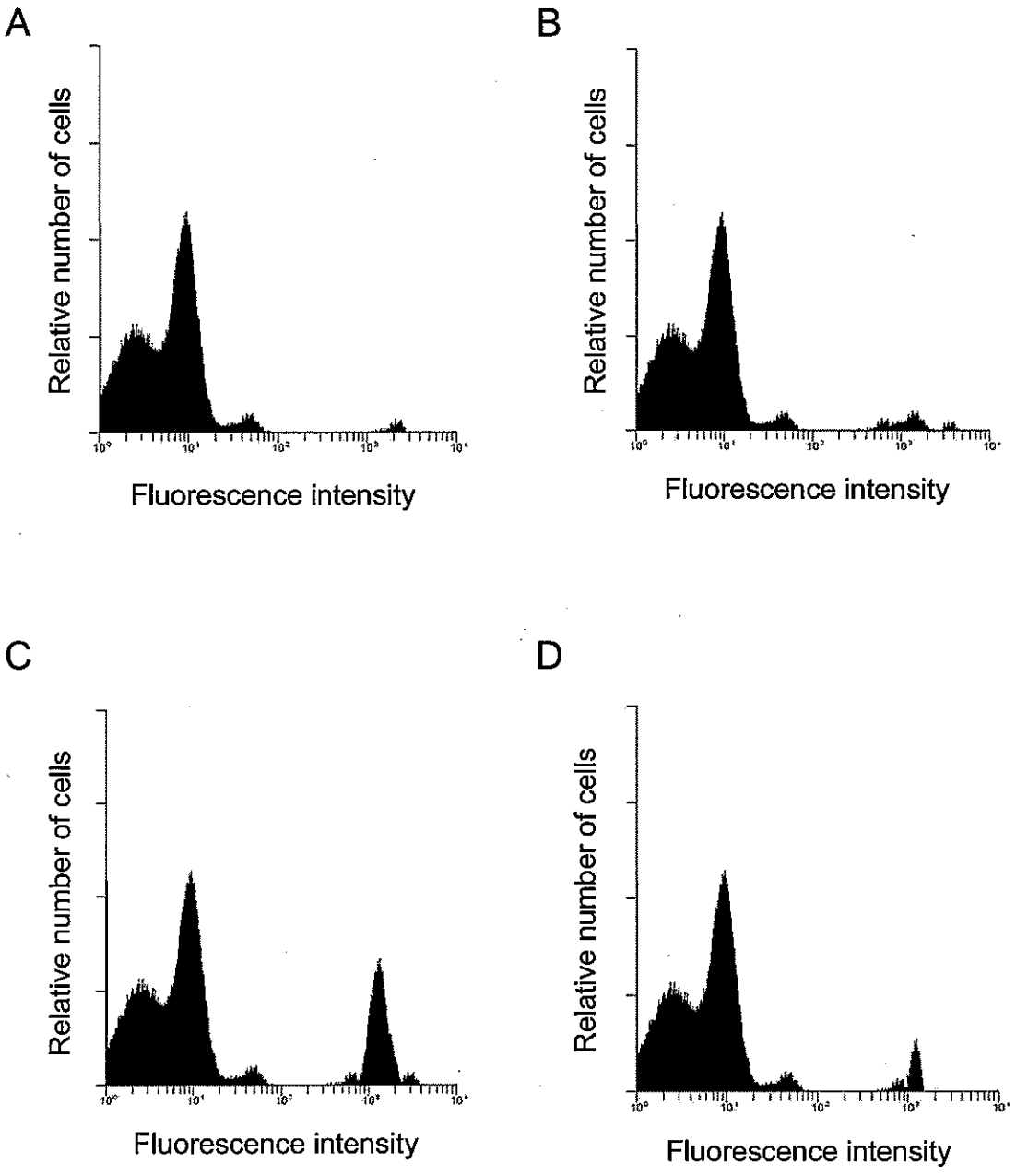

A
Relative number of cells
Fluorescence intensity
B
Relative number of cells
Fluorescence intensity
C
Relative number of cells
Fluorescence intensity
D
Relative number of cells
Fluorescence intensity

Figure 9

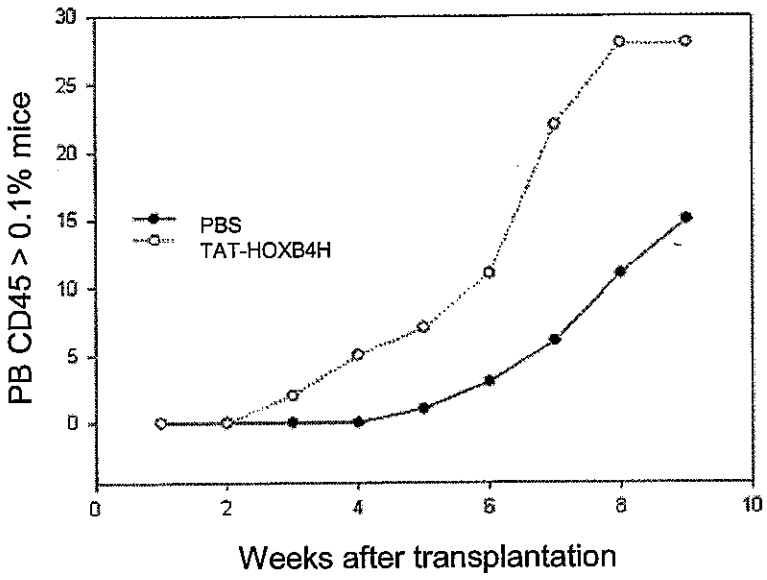


Figure 10

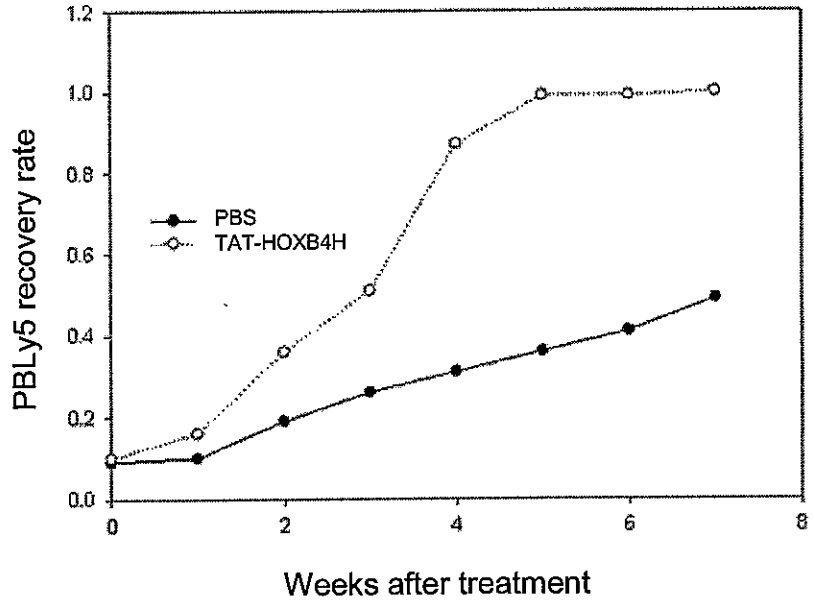


Figure 11