FIG. 1

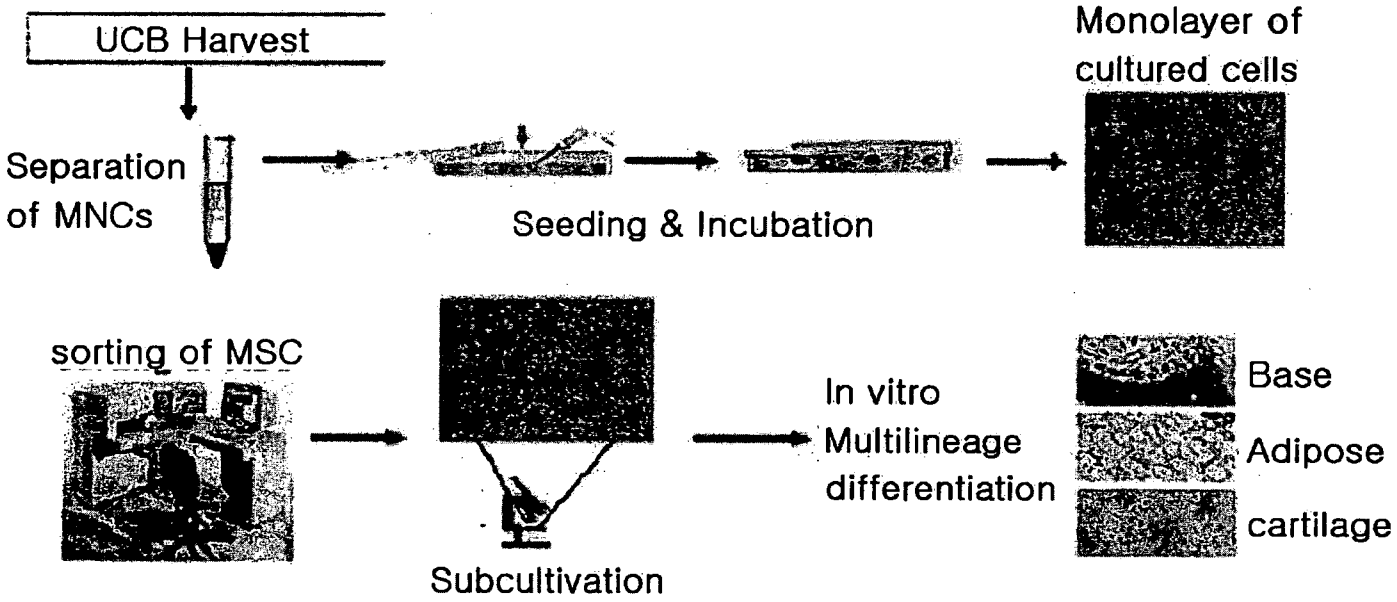

UCB Harvest
Separation of MNCs
Seeding & Incubation
Monolayer of cultured cells
sorting of MSC
Subcultivation
In vitro Multilineage differentiation
Base
Adipose
cartilage

FIG. 2

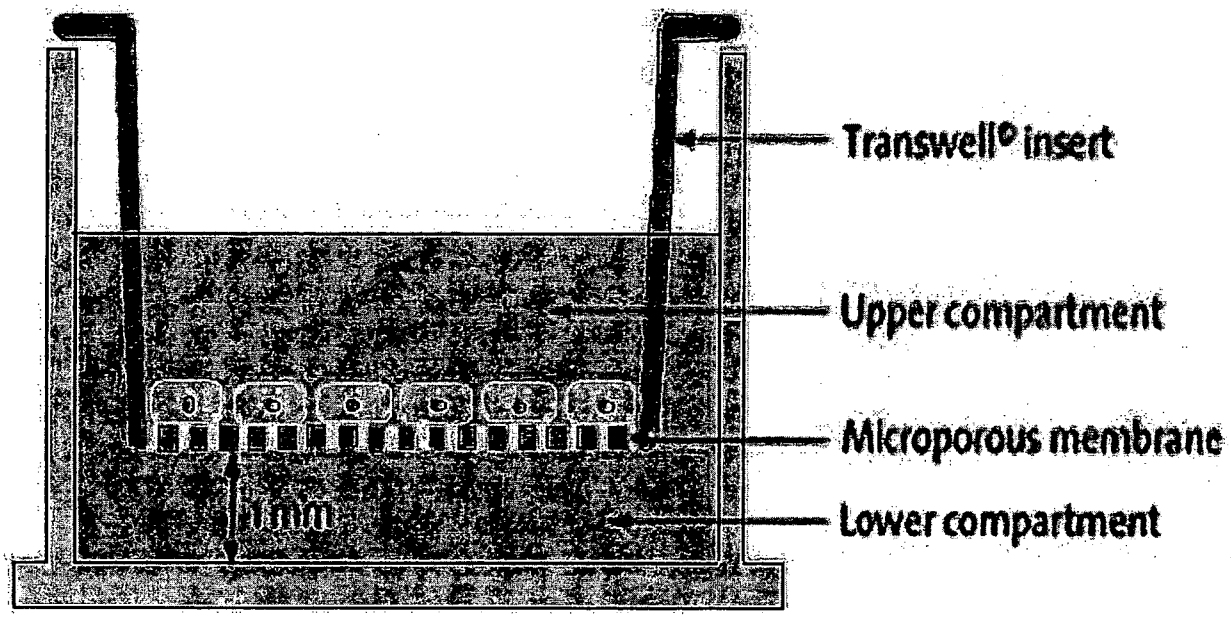
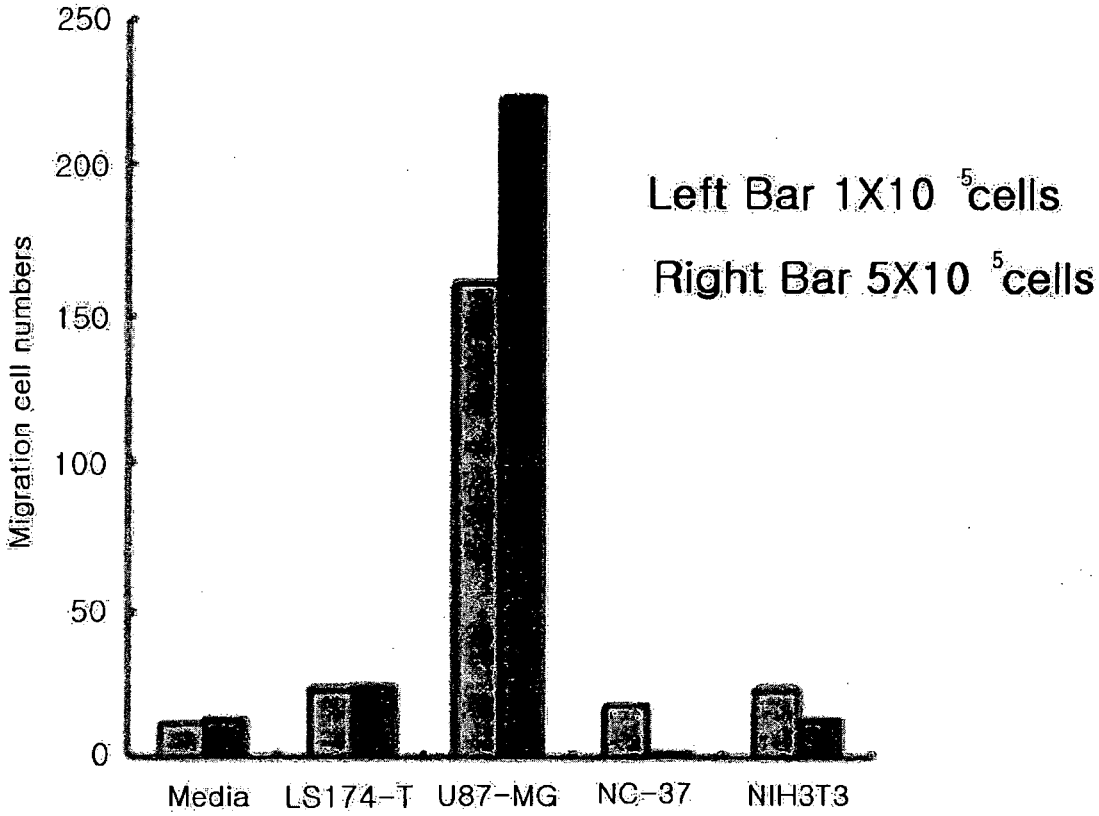

Transwell® insert
Upper compartment
Microporous membrane
Lower compartment
1 mm

FIG. 3

A


250
200
150
100
50
0
Migration cell numbers
Left Bar 1X10 5cells
Right Bar 5X10 5cells
Media
LS174-T
U87-MG
NC-37
NIH3T3

B

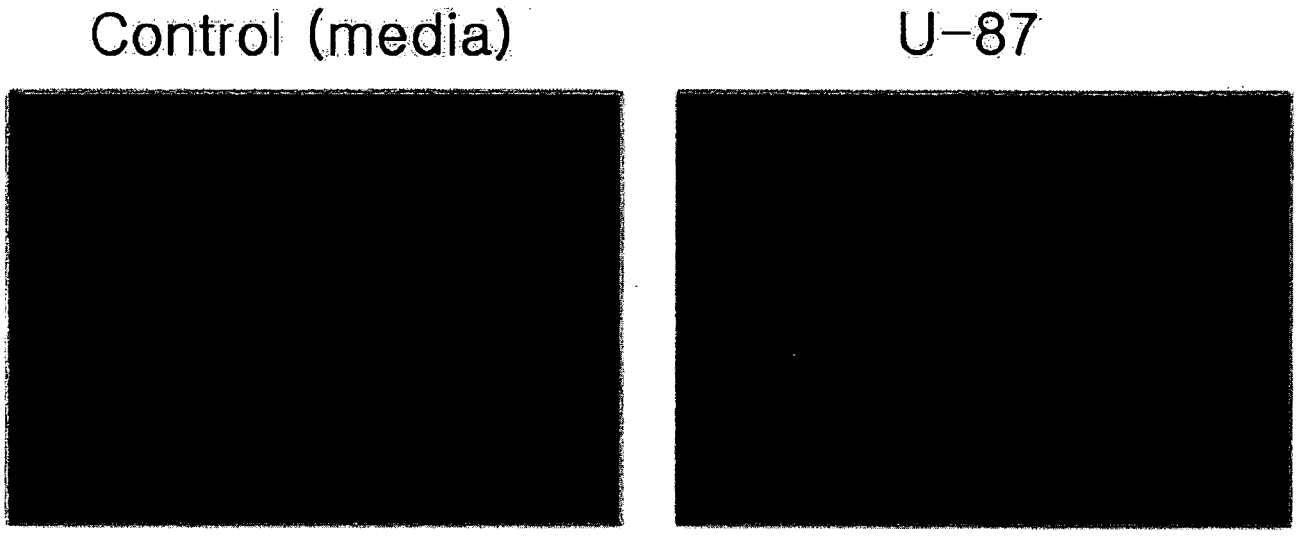

Control (media)
U-87

FIG. 4

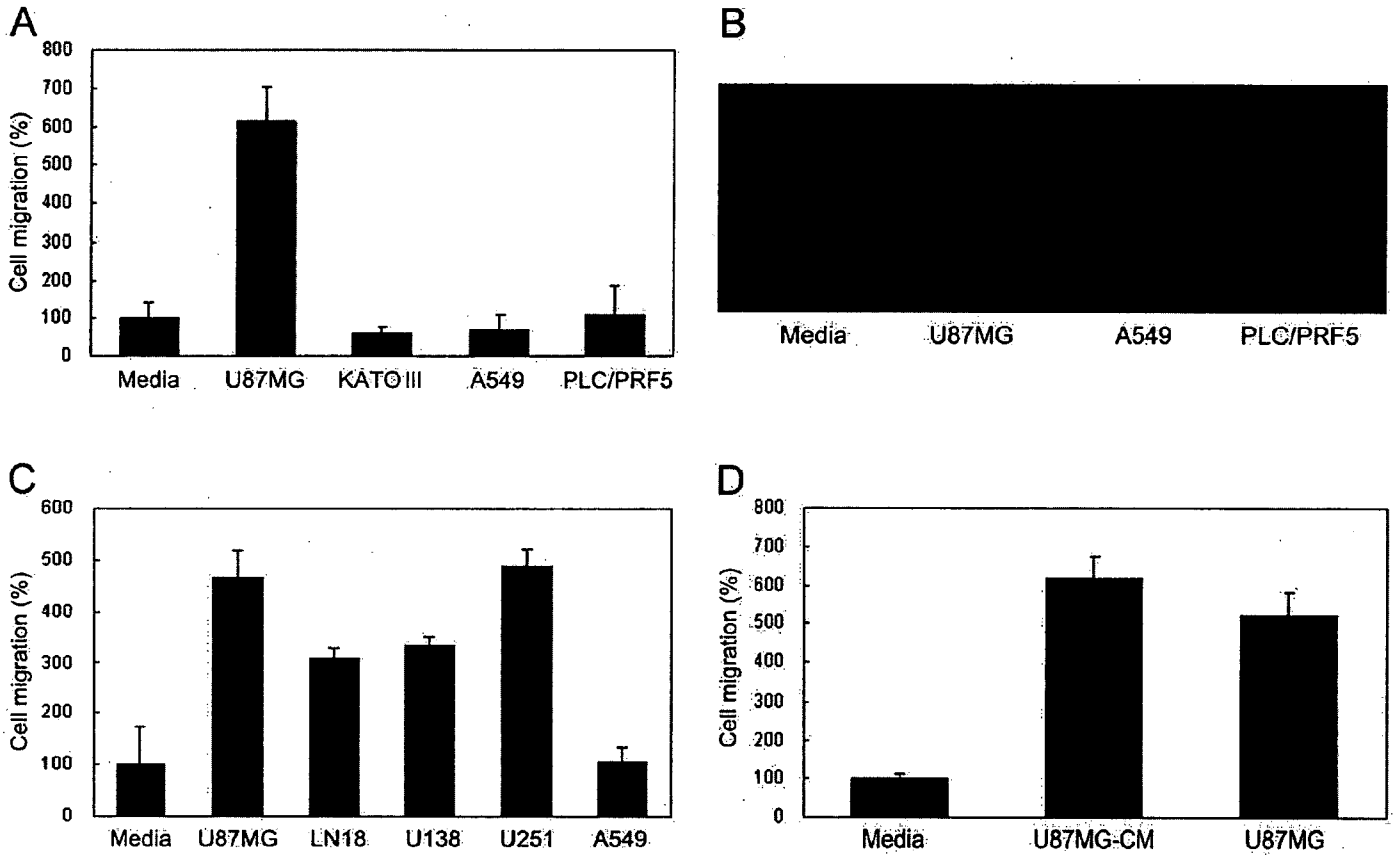

A
Cell migration (%)
800
700
600
500
400
300
200
100
0
Media
U87MG
KATOIII
A549
PLC/PRF5
B
Media
U87MG
A549
PLC/PRF5
C
Cell migration (%)
600
500
400
300
200
100
0
Media
U87MG
LN18
U138
U251
A549
D
Cell migration (%)
800
700
600
500
400
300
200
100
0
Media
U87MG-CM
U87MG

FIG. 5

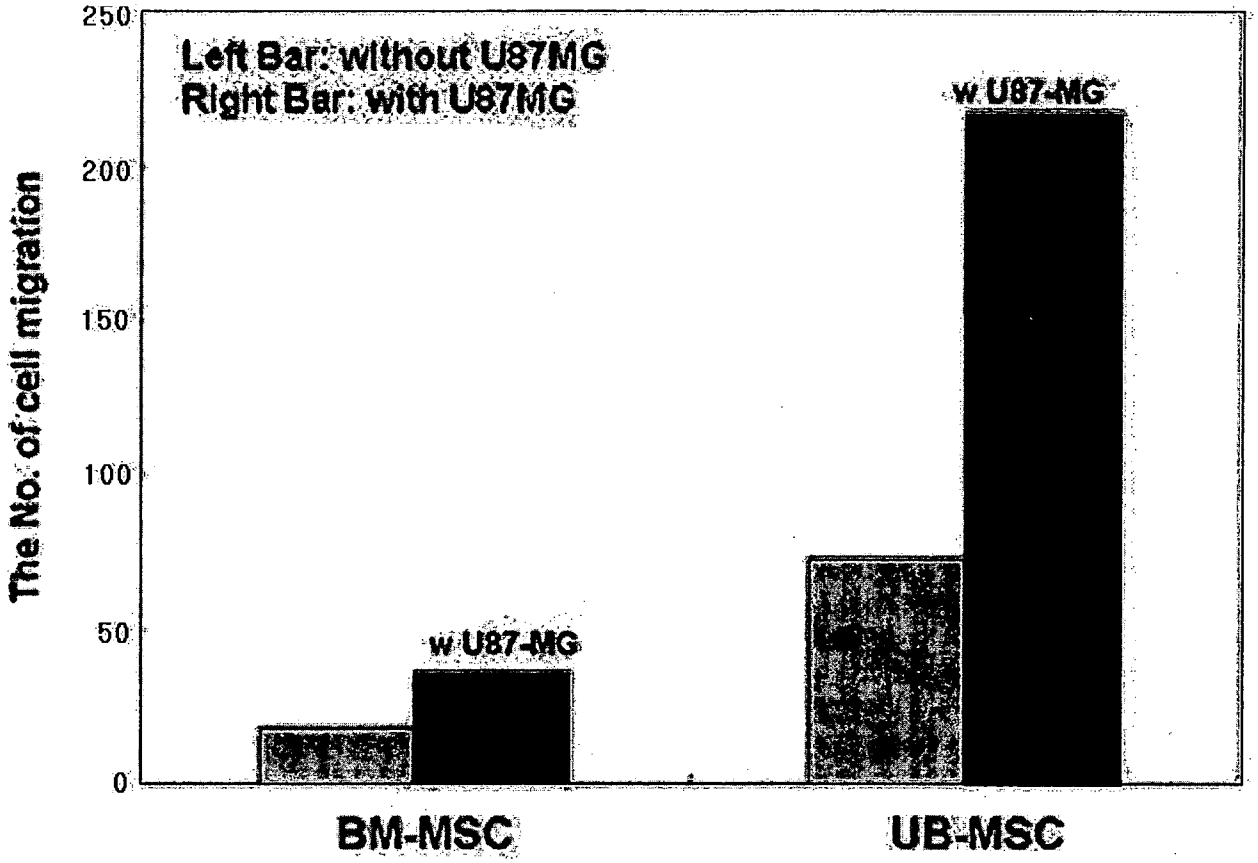

Left Bar: without U87MG
Right Bar: with U87MG
The No. of cell migration
250
200
150
100
50
0
w U87-MG
w U87-MG
BM-MSC
UB-MSC

FIG. 6

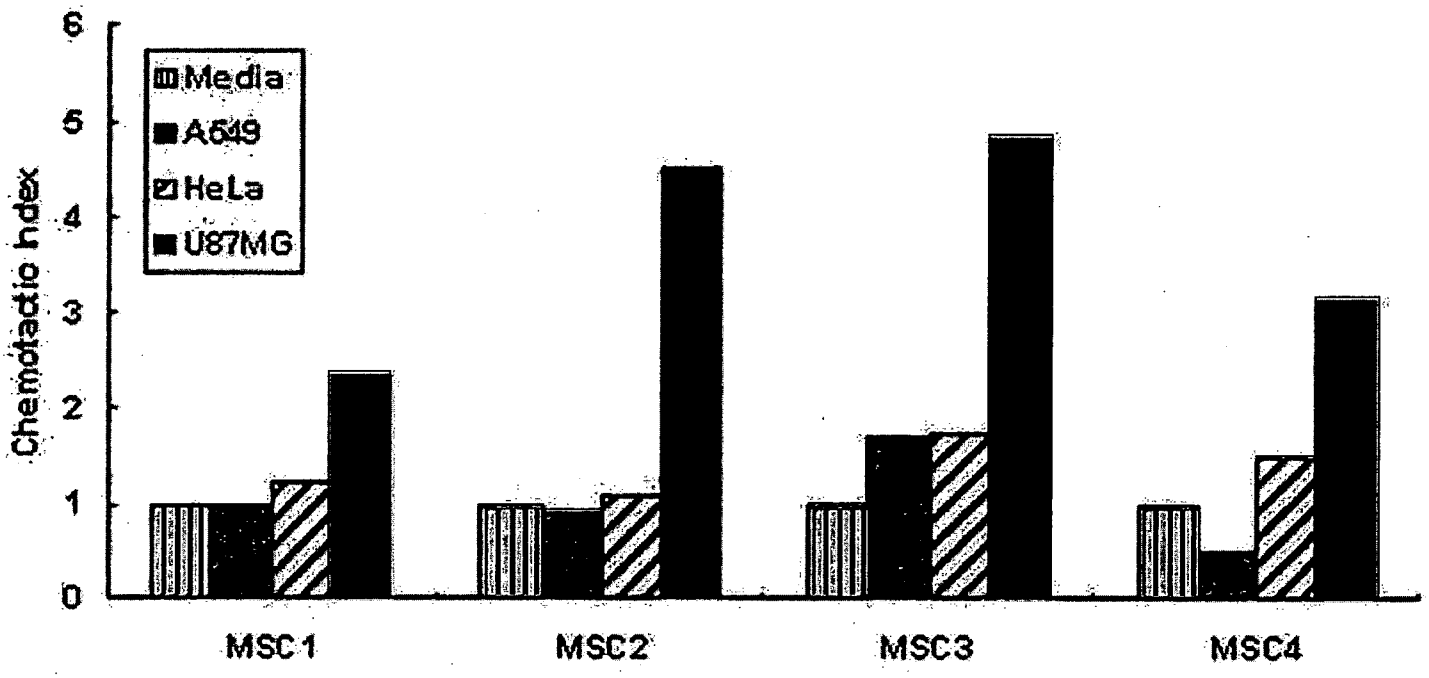

Chemotactic Index
0
1
2
3
4
5
6
Media
A549
HeLa
U87MG
MSC1
MSC2
MSC3
MSC4

FIG. 7

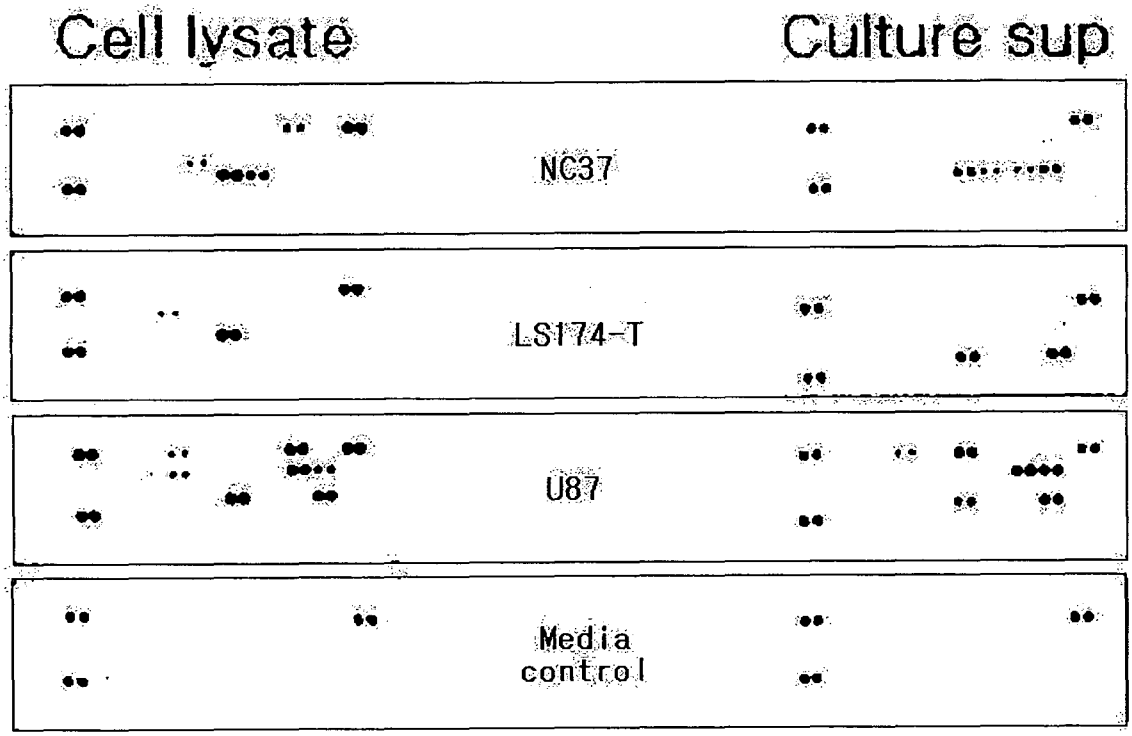


FIG. 8

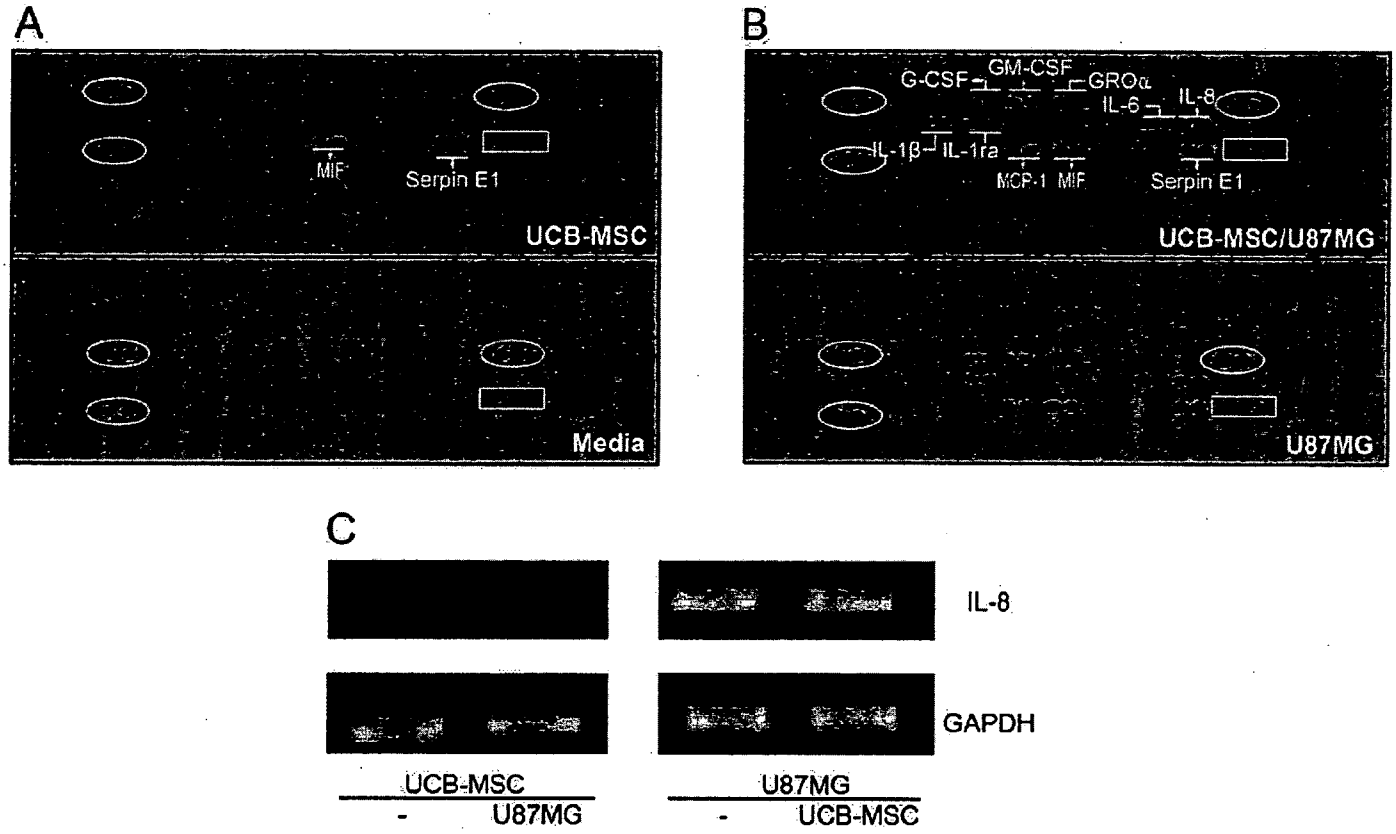

A
MIF
Serpin E1
UCB-MSC
Media
B
G-CSF
GM-CSF
GROα
IL-6
IL-8
IL-1β
IL-1ra
MCP-1
MIF
Serpin E1
UCB-MSC/U87MG
U87MG
C
IL-8
GAPDH
UCB-MSC
- U87MG
U87MG
- UCB-MSC

FIG. 9

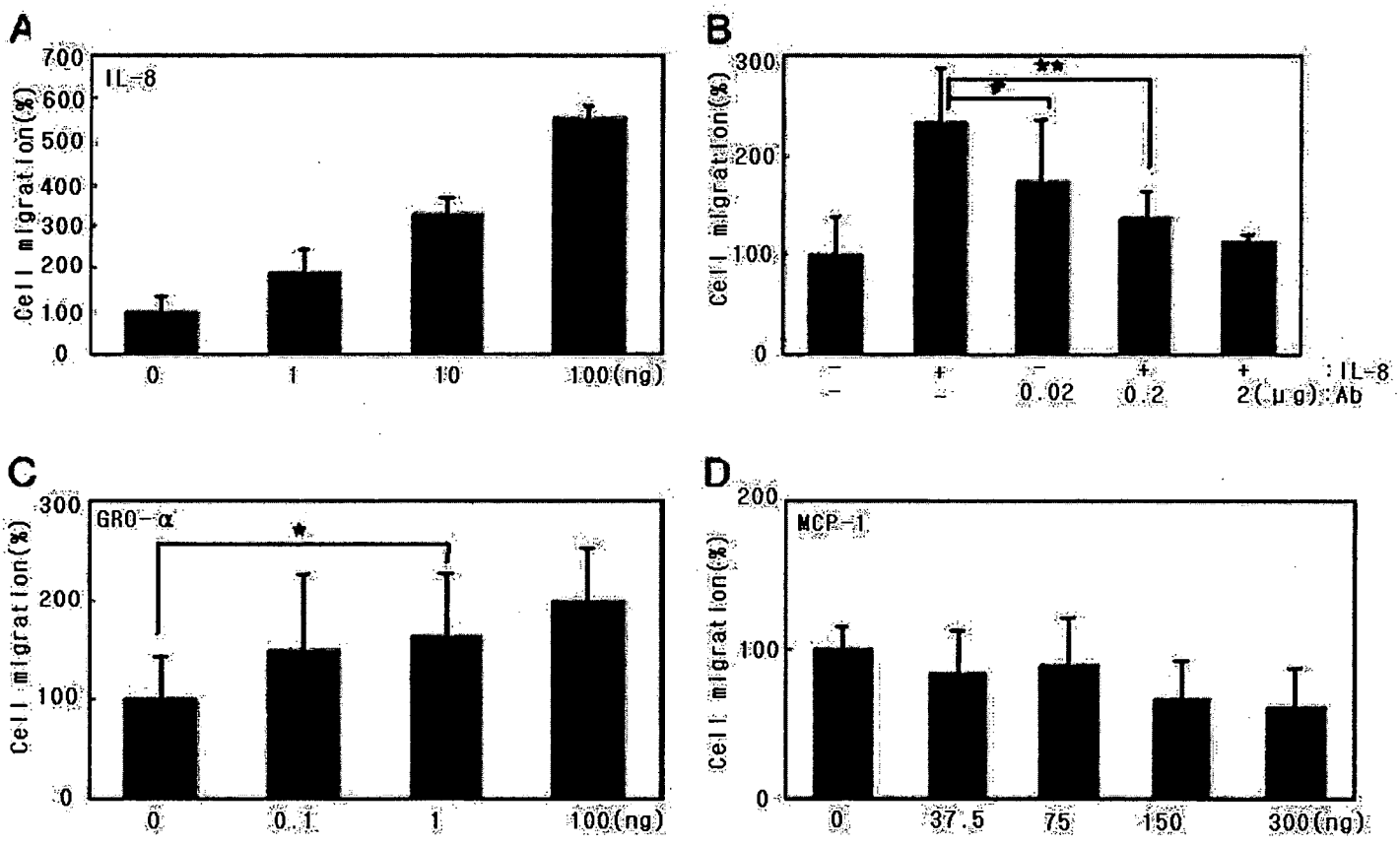

A
IL-8
Cell migration(%)
700
600
500
400
300
200
100
0
0
1
10
100(ng)
B
Cell migration(%)
300
200
100
0
**
*
0.02
0.2
2(μg) Ab
: IL-8
C
GRO-α
Cell migration(%)
300
200
100
0
*
0
0.1
1
100(ng)
D
MCP-1
Cell migration(%)
200
100
0
0
37.5
75
150
300(ng)

FIG. 10

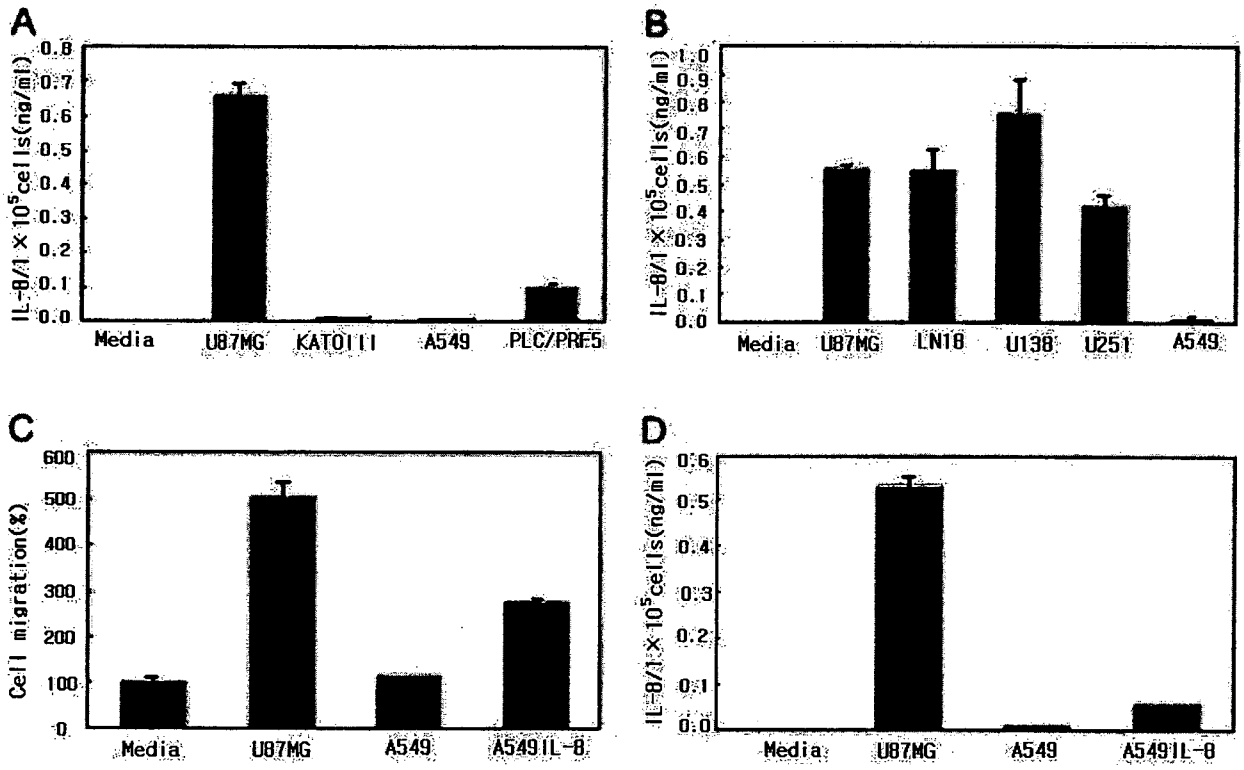

A
IL-8/1 × 10^5 cells(ng/ml)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
Media
U87MG
KATOIII
A549
PLC/PRF5
B
IL-8/1 × 10^5 cells(ng/ml)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Media
U87MG
LN18
U138
U251
A549
C
Cell migration(%)
0
100
200
300
400
500
600
Media
U87MG
A549
A549IL-8
D
IL-8/1 × 10^5 cells(ng/ml)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Media
U87MG
A549
A549IL-8

FIG. 11

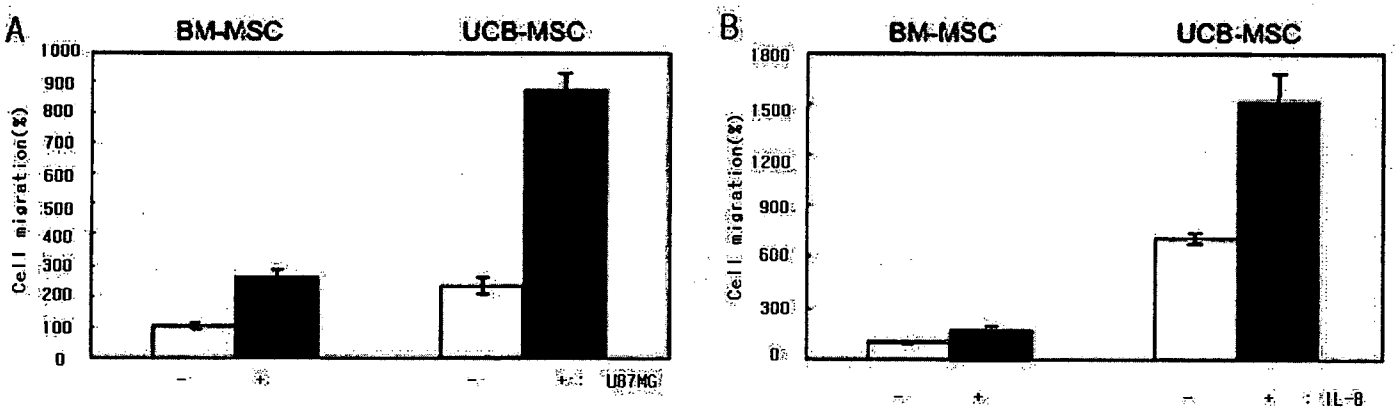

A
BM-MSC
UCB-MSC
Cell migration(%)
1000
900
800
700
600
500
400
300
200
100
0
-
+
-
+
U87MG
B
BM-MSC
UCB-MSC
Cell migration(%)
1800
1500
1200
900
600
300
0
-
+
-
+
: IL-8

FIG. 12

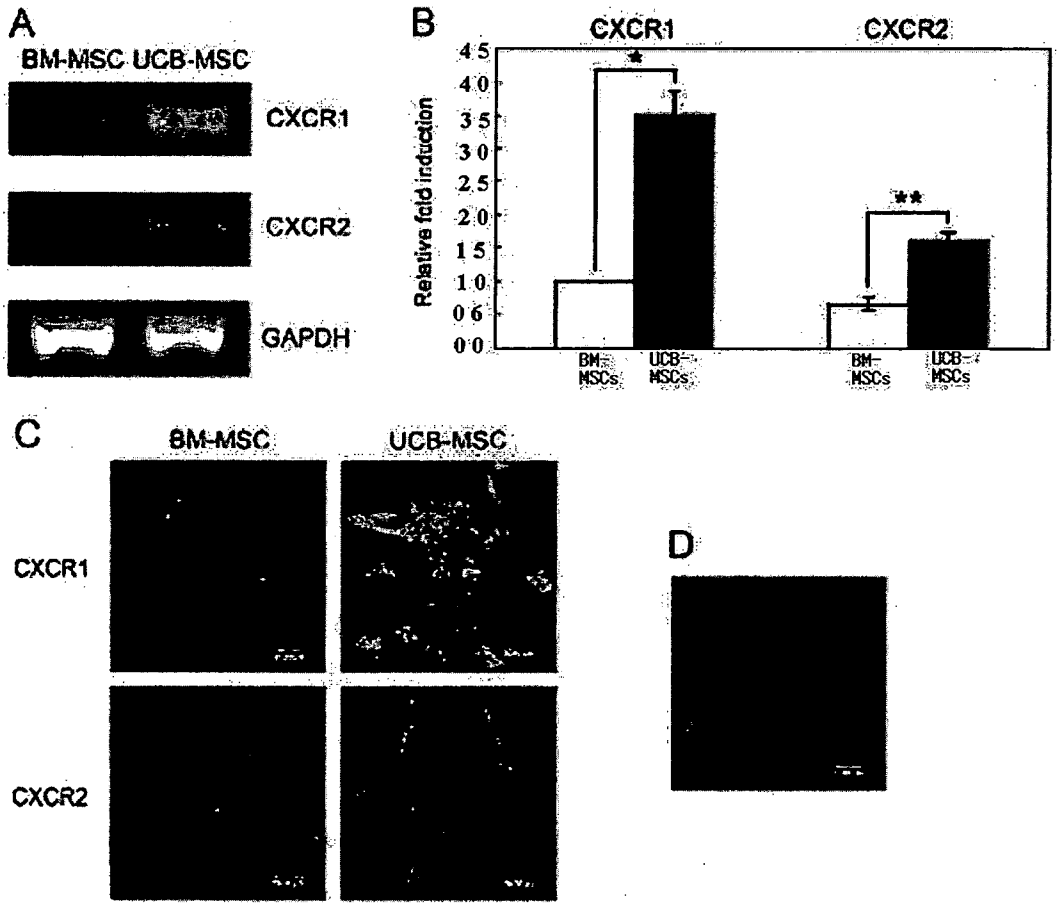

A
BM-MSC UCB-MSC
CXCR1
CXCR2
GAPDH
B
CXCR1
CXCR2
Relative fold induction
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.6
0.0
*
**
BM-MSCs
UCB-MSCs
BM-MSCs
UCB-MSCs
C
BM-MSC
UCB-MSC
CXCR1
CXCR2
D

FIG. 13



FIG. 14

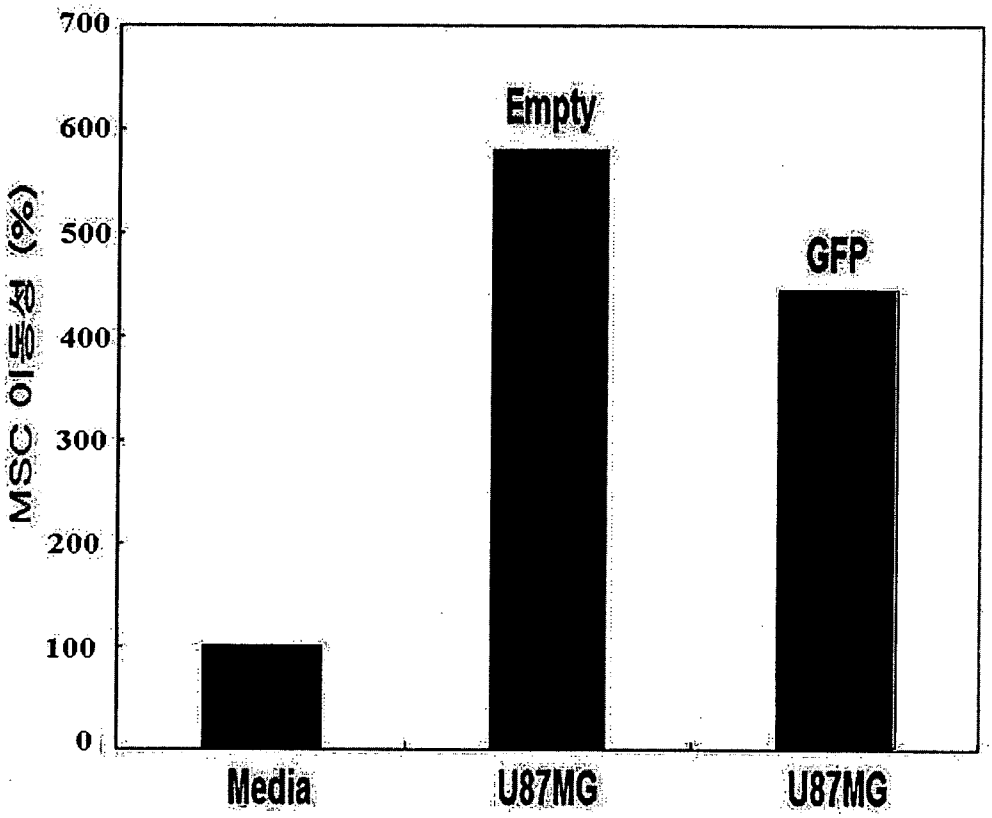

700
600
500
400
300
200
100
0
MSC 이동성 (%)
Empty
GFP
Media
U87MG
U87MG

FIG. 15

Primer sequence for target genes

Target gene	Primer sequence	Annealing temperature (℃)	PCR product size (bp)
GAPDH	5'-ACCACAGTCCATGCCATCAC-3'	55	452
	5'-TCCACCACCCTGTTGCTGTA-3'		
IL-8	5'-TCCTGATTTCTGCAGCTCTGTG-3'	55	300
	5'-TGCTTGAAGTTTCACTGGCATC-3'		
CXCR1	5'-GAGCCCCGAATCTGACATTA-3'	55	200
	5'-GCAGACACTGCAACACACCT-3'		
CXCR2	5'-ATTCTGGGCATCCTTCACAG-3'	55	202
	5'-TGCACTTAGGCAGGAGGTCT-3'		