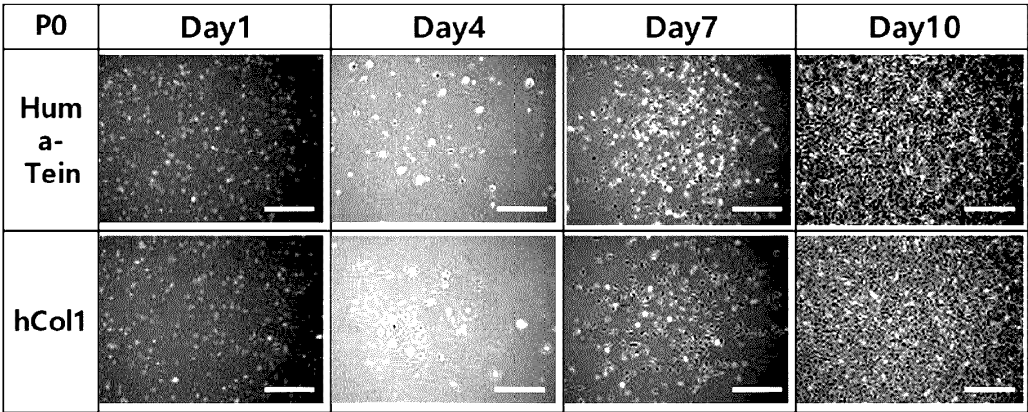
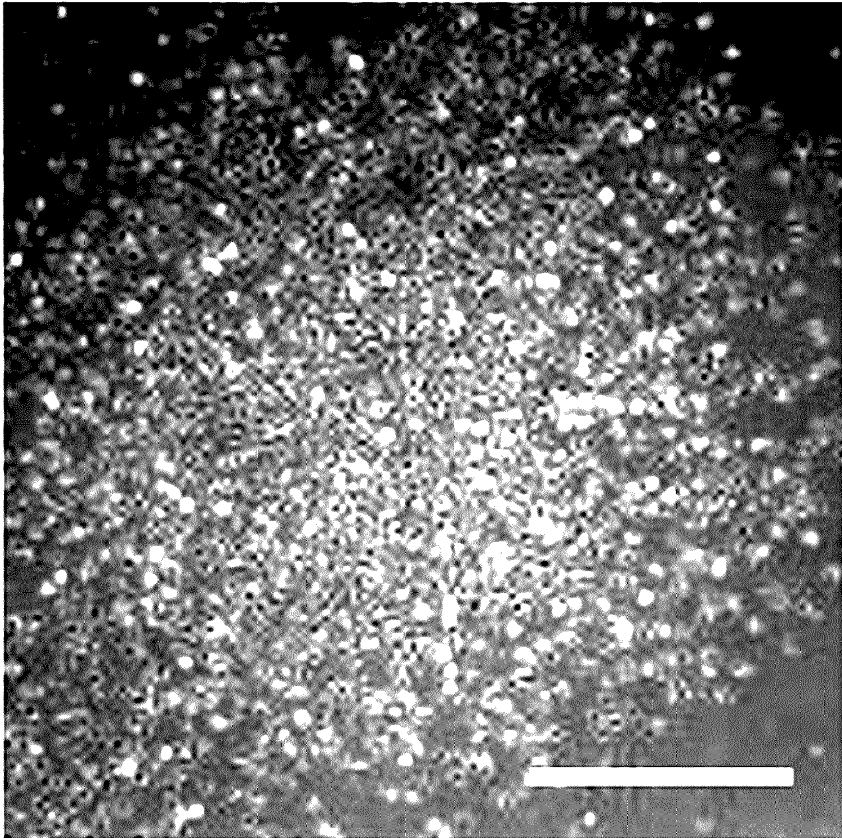


[도1a]



[도1b]

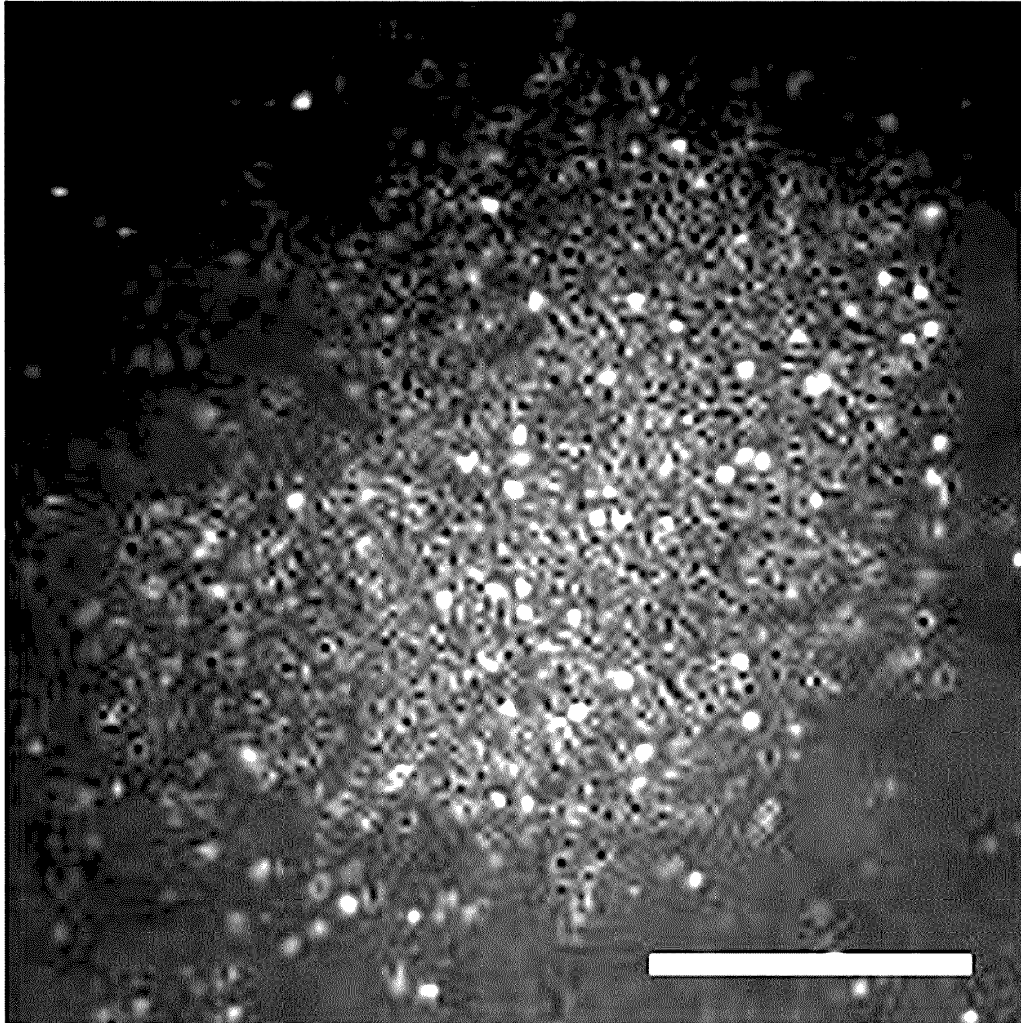
인간 피브로넥틴



Scale bar=500μm

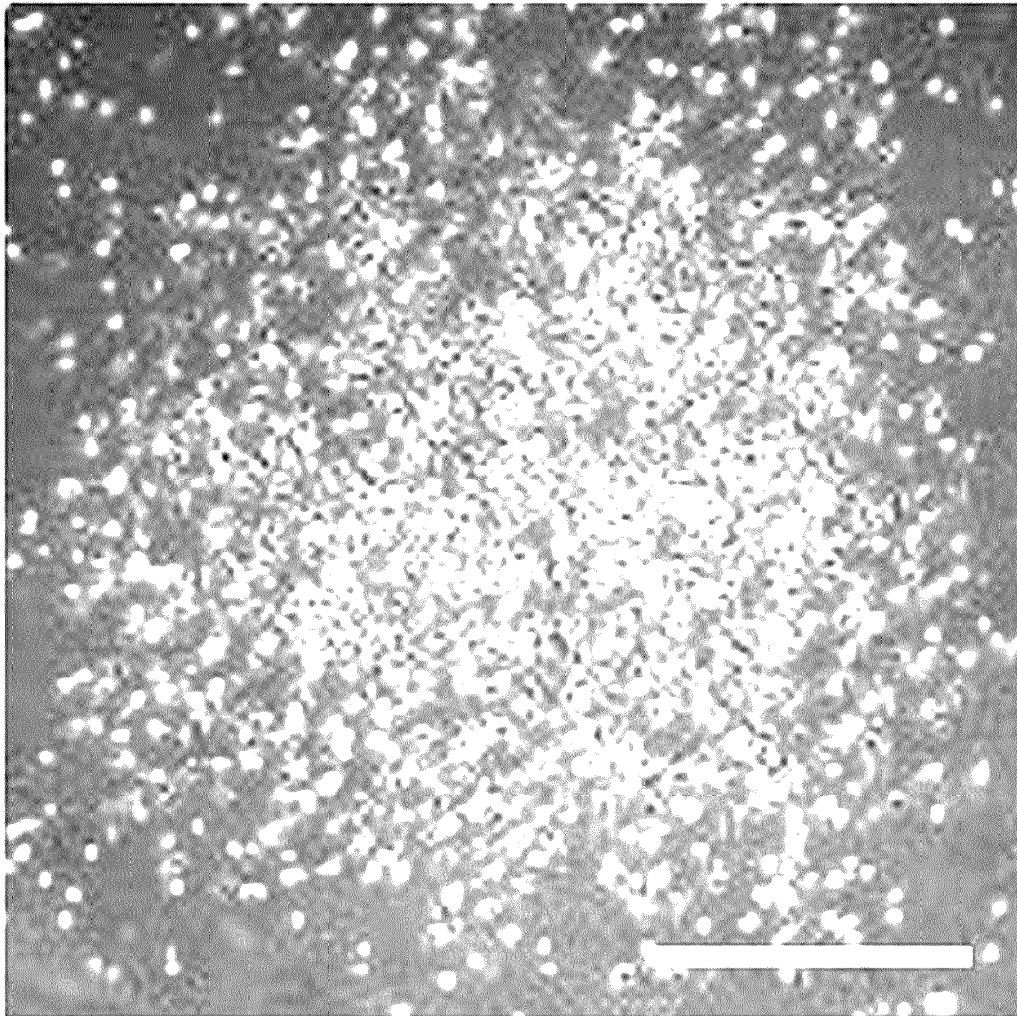
[도1c]

랫 꼬리 유래 1형 콜라겐



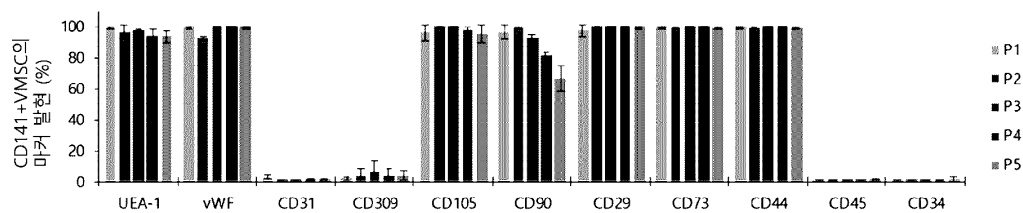
[도1d]

ECM 미메틱 콜라겐 I 펩타이드

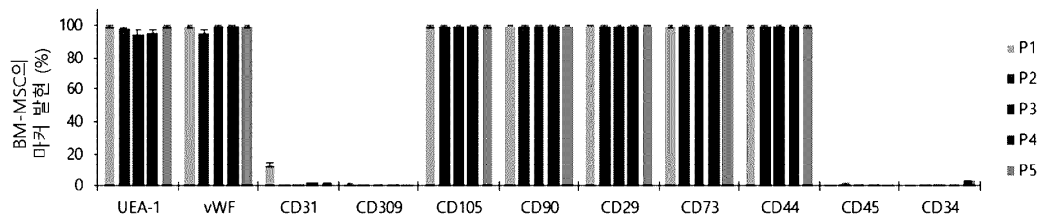


Scale bar=500 μ m

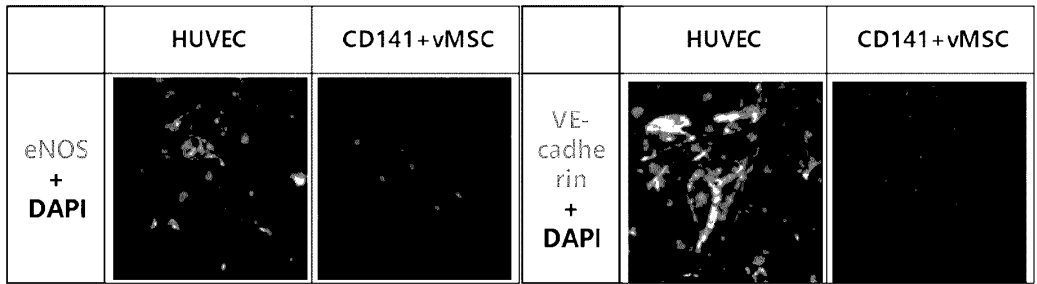
[도2a]



[도2b]



[도2c]



[도3a]

Antibody	CD141+v MSC	BM-MSQ
CD66c	10.64%	92.30%
CD102	89.25%	30.14%
CD141	89.67%	13.25%
CD172g	33.37%	95.91%
CD253	94.68%	20.20%
CD282	90.43%	10.98%
CD302	79.01%	5.47%
CD303	75.76%	1.01%
CD310	80.29%	7.37%
CD317	87.91%	14.36%
CD319	75.61%	5.16%

Antibody	CD141+v MSC	BM-MSQ
DCIR	74.54%	4.43%
fMLP-receptor	81.31%	6.27%
FPRL1_FPR2	55.10%	0.24%
HLA E	89.27%	4.15%
Integrin b6	77.62%	2.08%
LT bR	99.88%	31.85%
MDL-1	81.83%	3.42%
Notch2	57.95%	0.43%
OSCAR	92.94%	5.47%
PEAR1	93.89%	9.67%

90%<

80%<

70%<

60%<

50%<

40%<

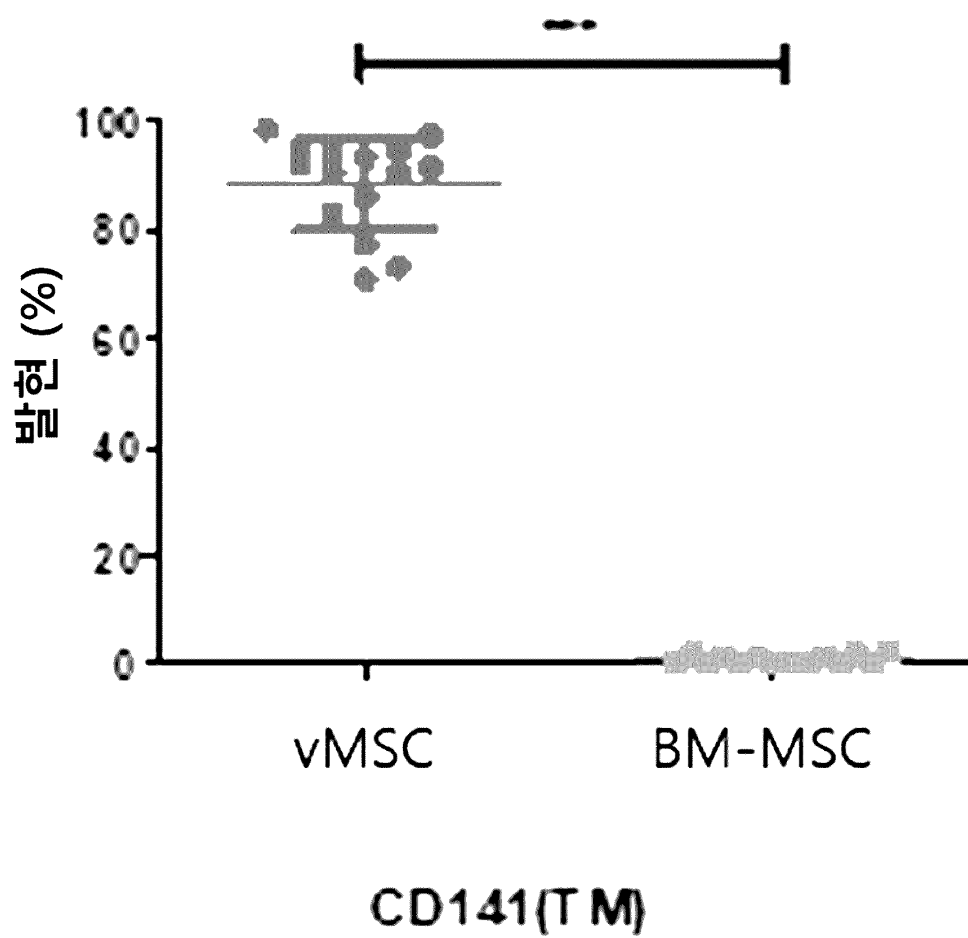
30%<

20%<

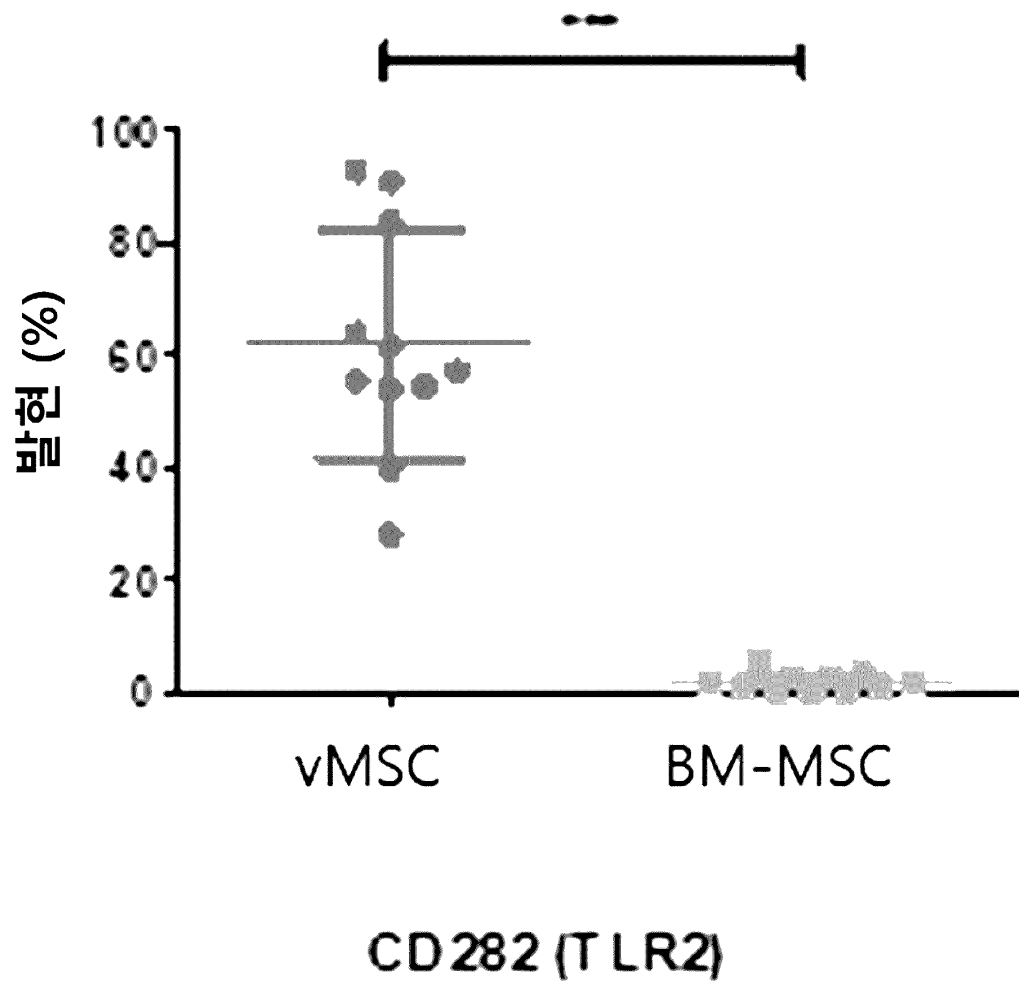
10%<

10%>=

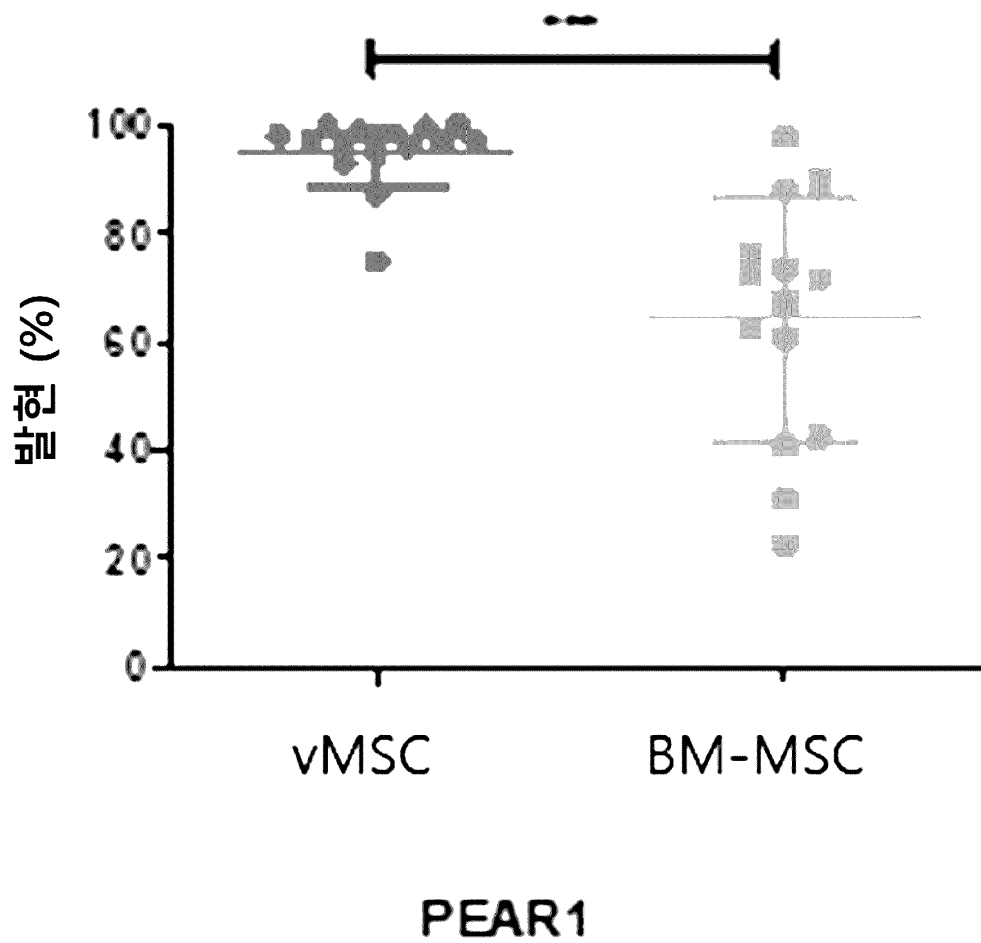
[도3b]



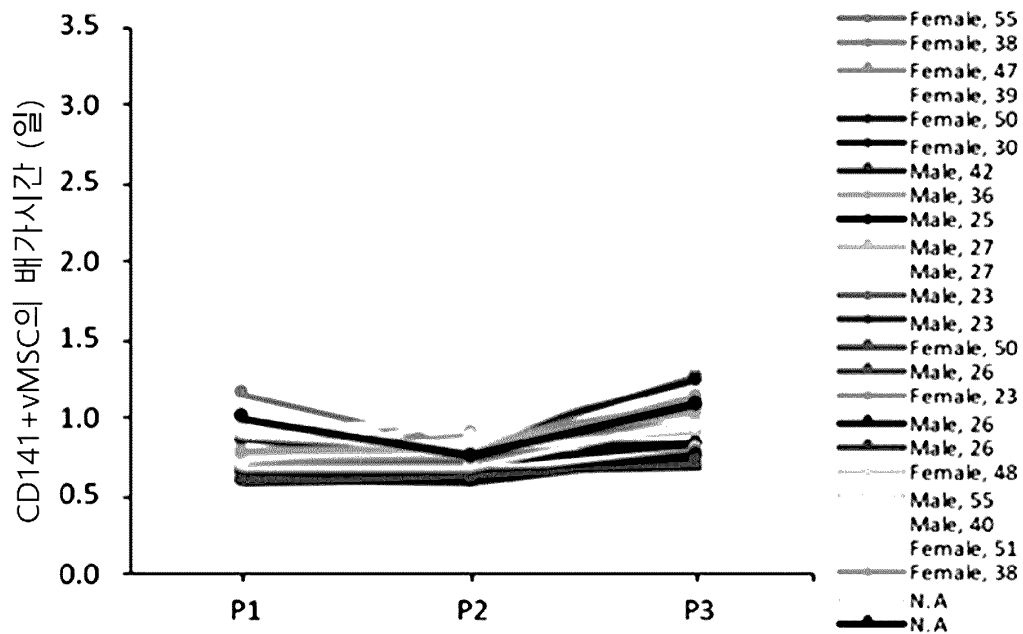
[도3c]



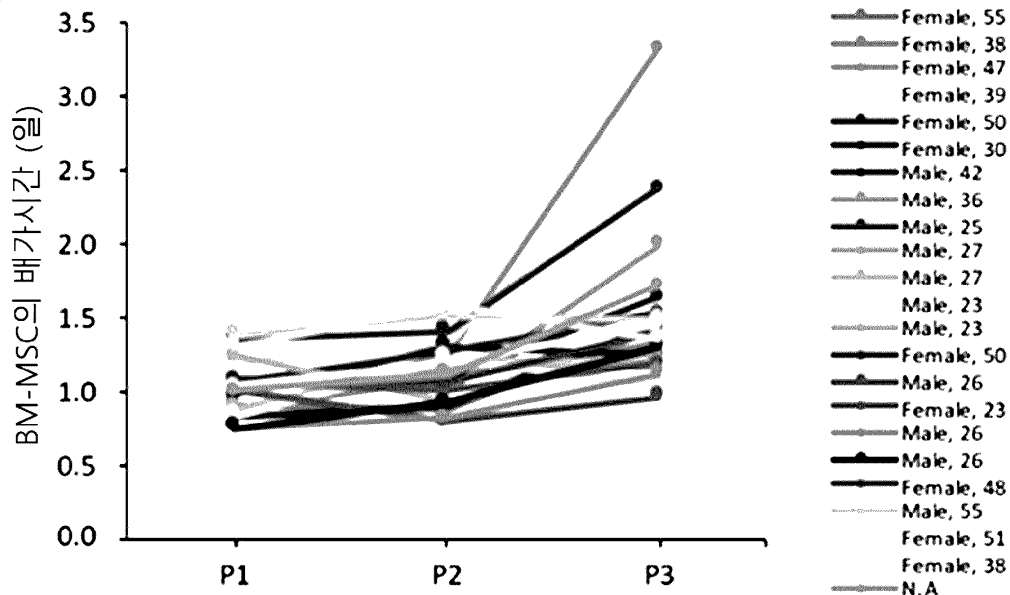
[도3d]



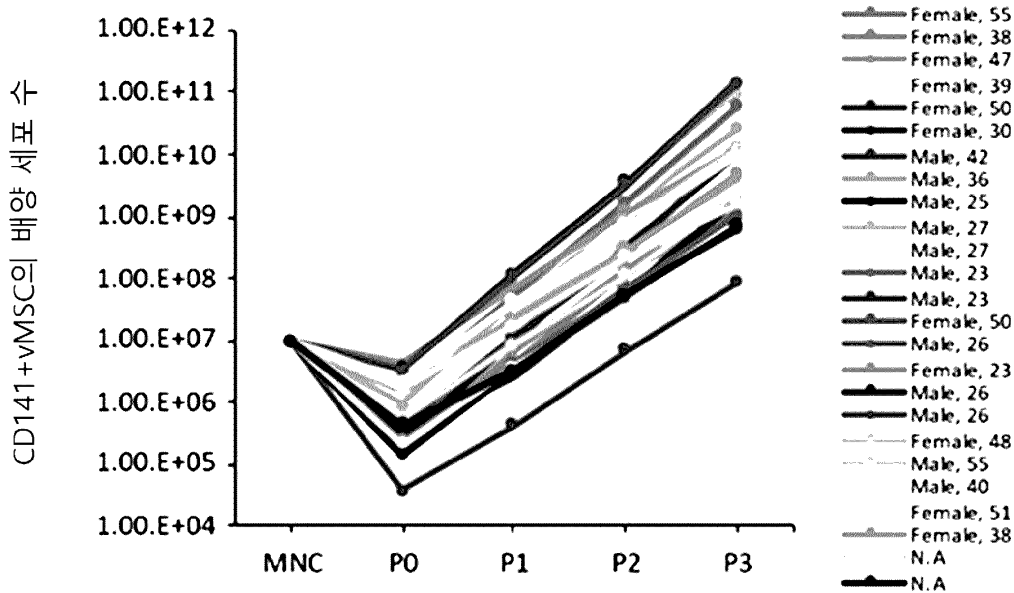
[54a]



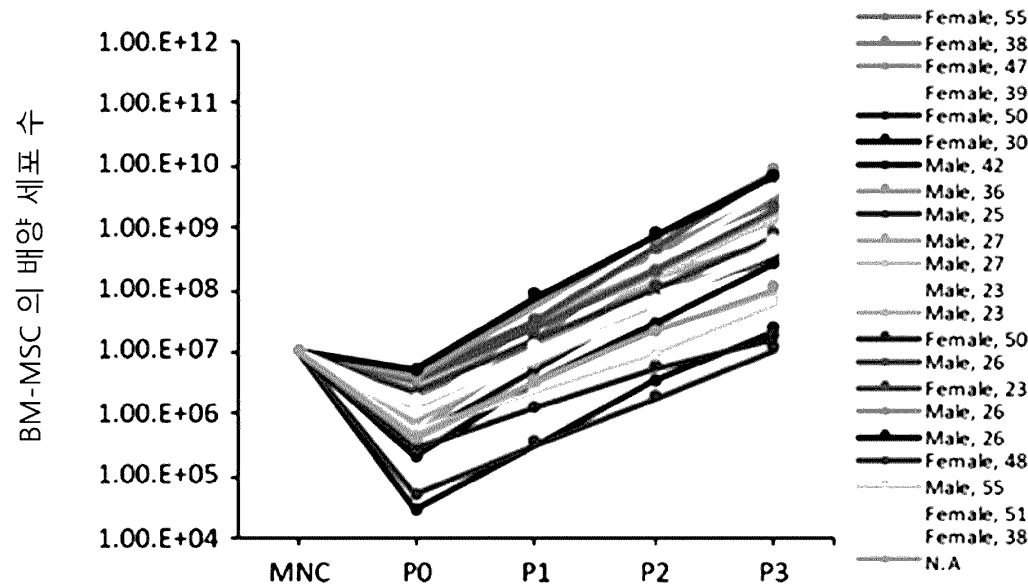
[도4b]



[도4c]



[도4d]



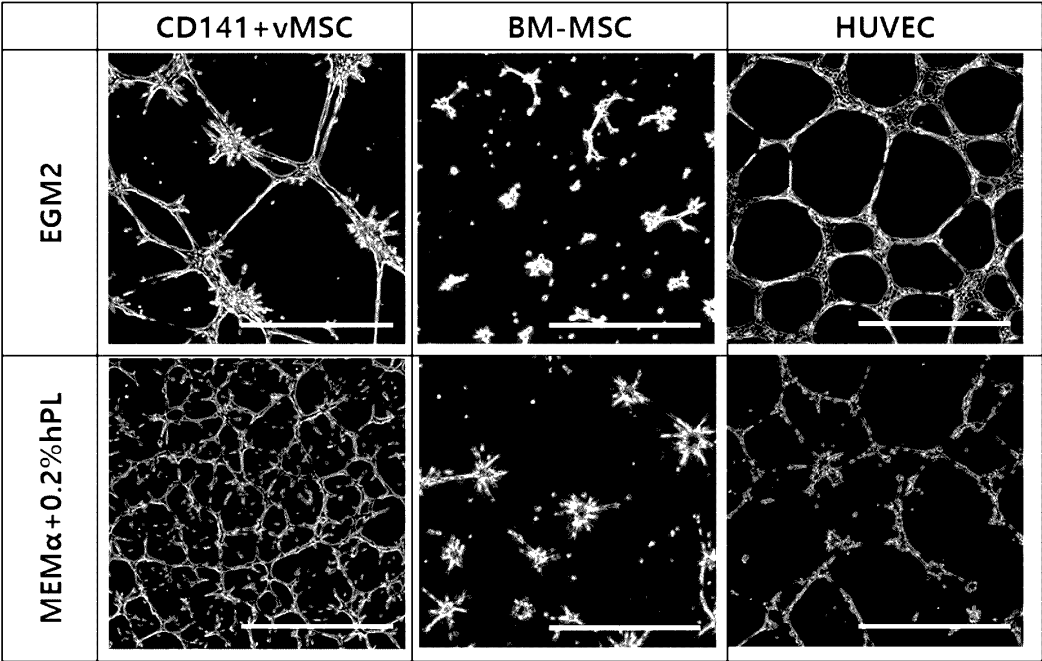
[도4e]

		P0	P1	P2	P3
평균 누적배양기간 (일)	CD141+VMSC	10	13	17	21
	BM-MSc				
평균 누적세포수	CD141+VMSC	1.33.E+06	3.63.E+07	9.30.E+08	2.99.E+10
	BM-MSc	1.63.E+06	1.93.E+07	1.86.E+08	1.80.E+09
평균 PDT (시간)	CD141+VMSC		17.8	18.3	24.4
	BM-MSc		24.6	27.4	37.4

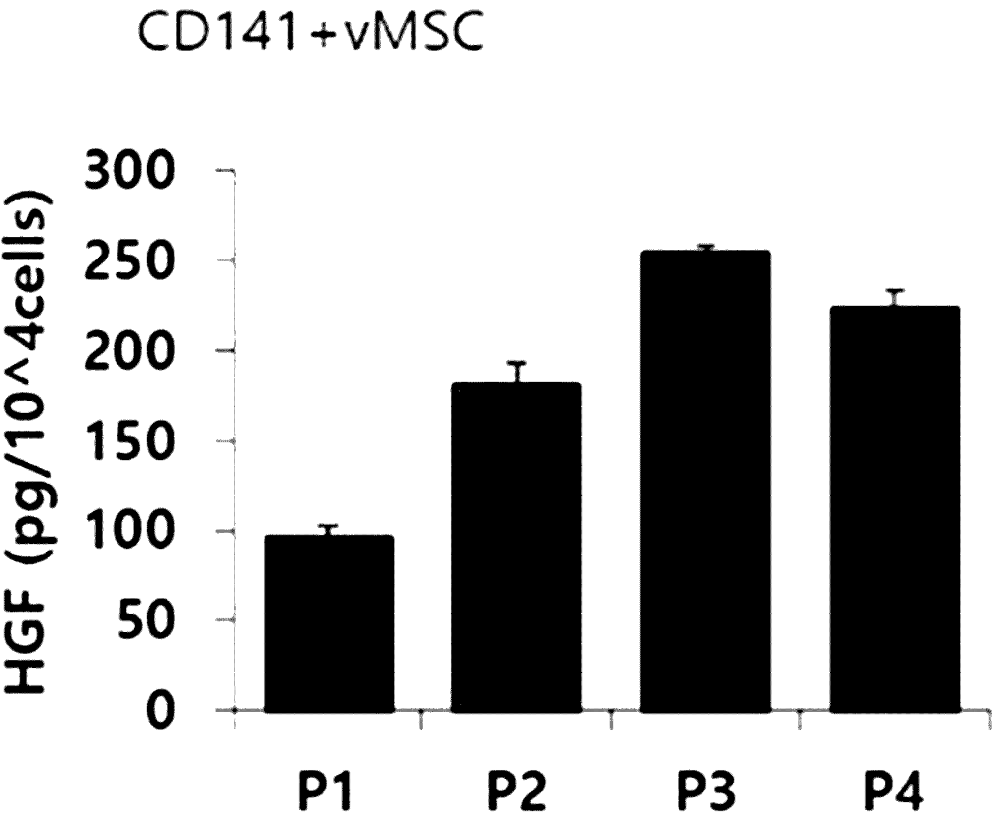
[도5]

	Adipogenesis	Osteogenesis	Chondrogenesis
CD141+VMSC			
BM-MSc			

[Figure 6]

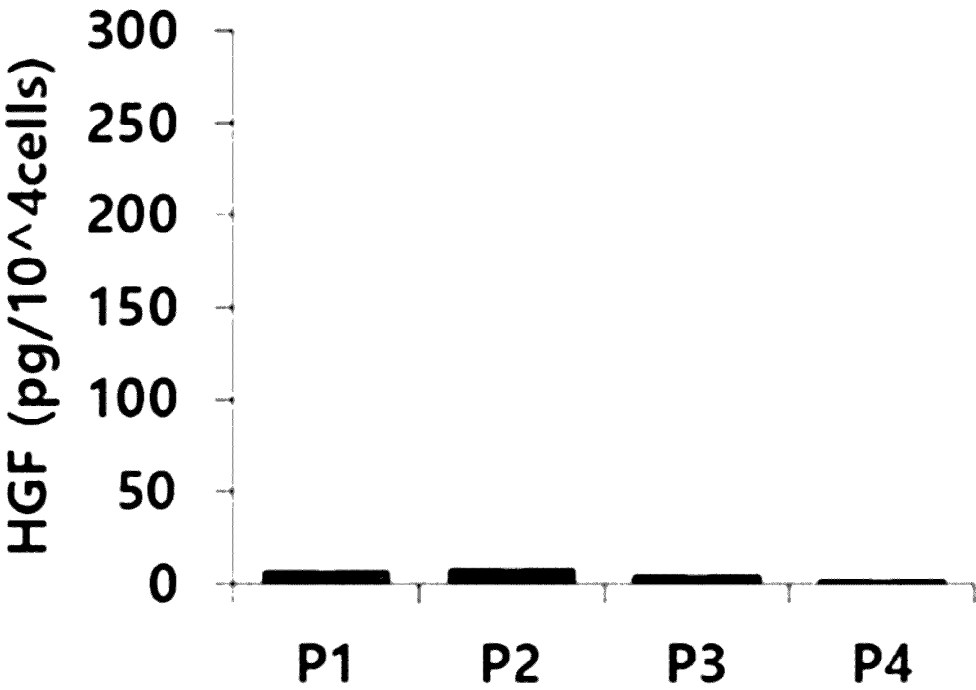


[Figure 7a]

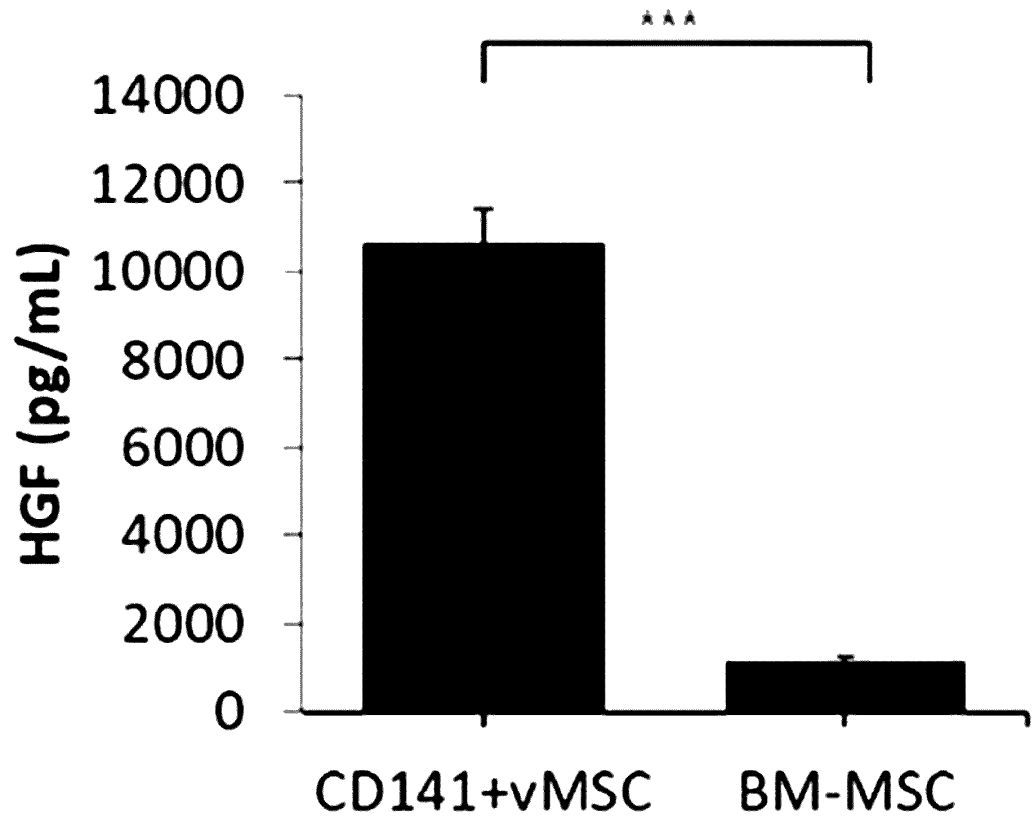


[도 7b]

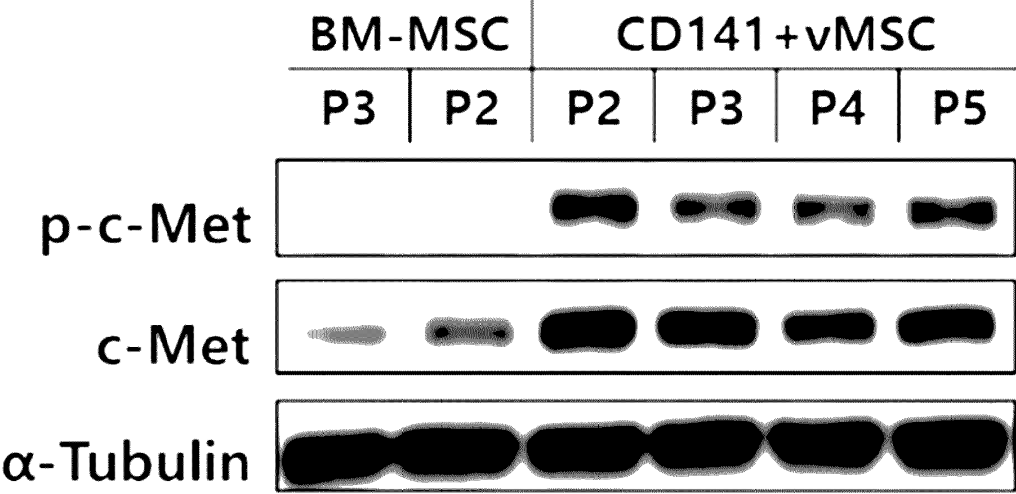
BM-MSC



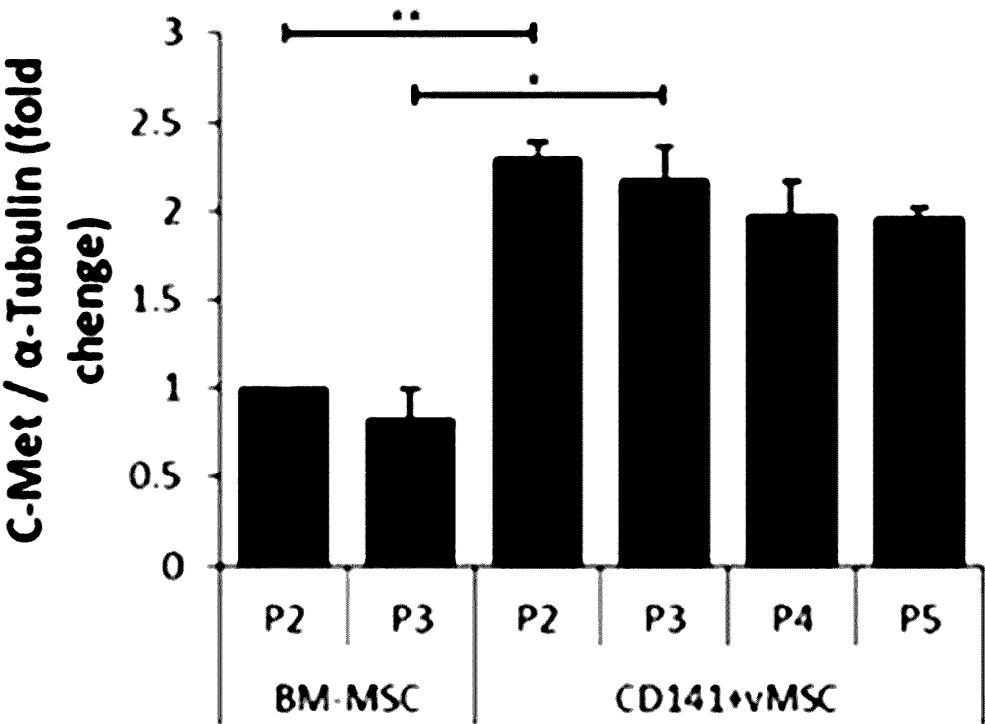
[도7c]



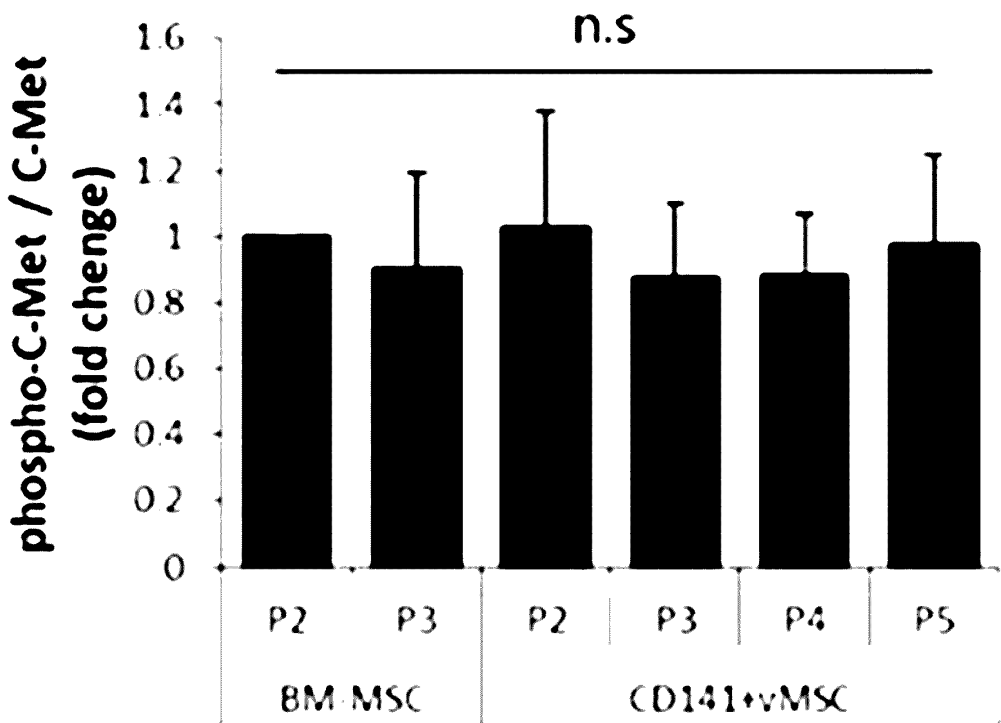
[도7d]



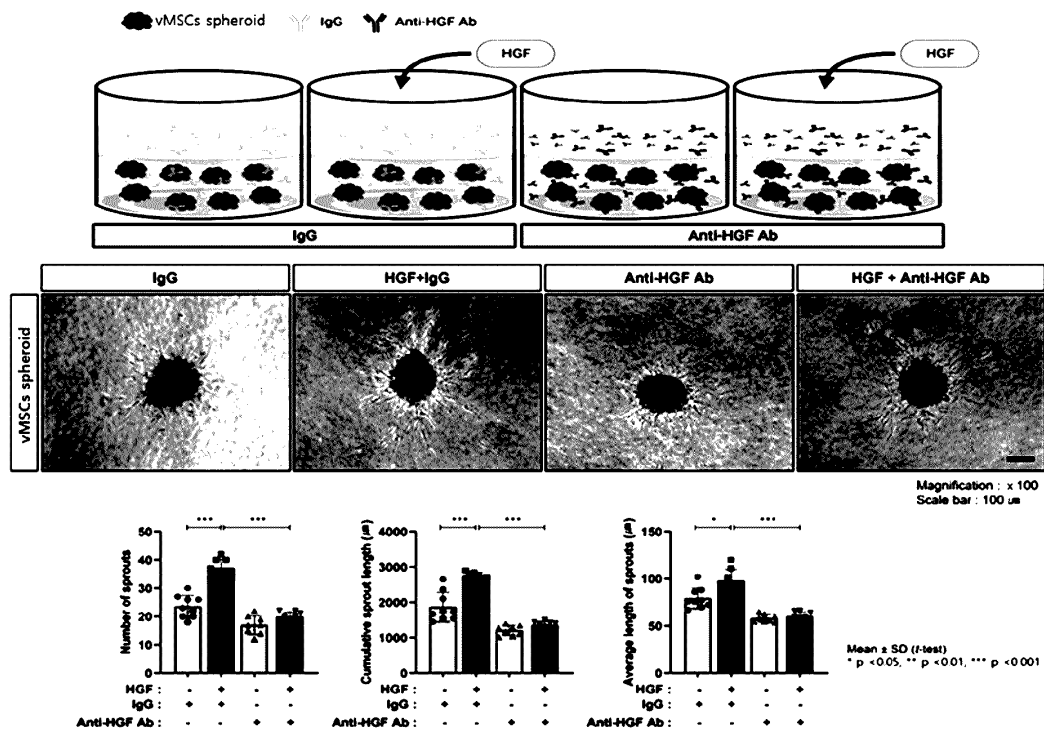
[도7e]



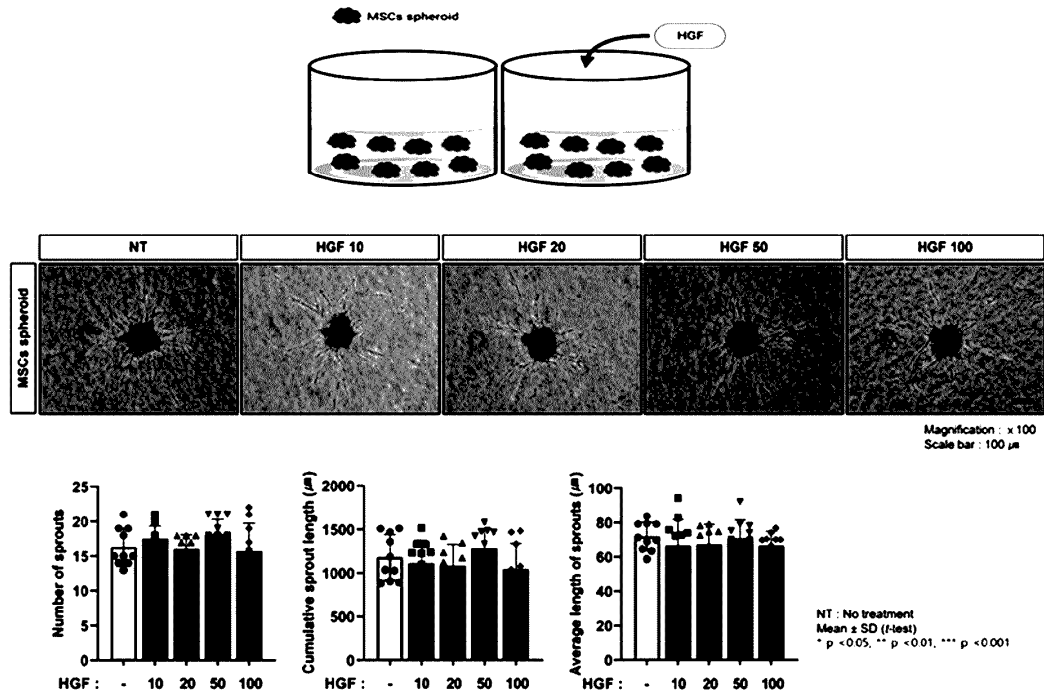
[도7f]



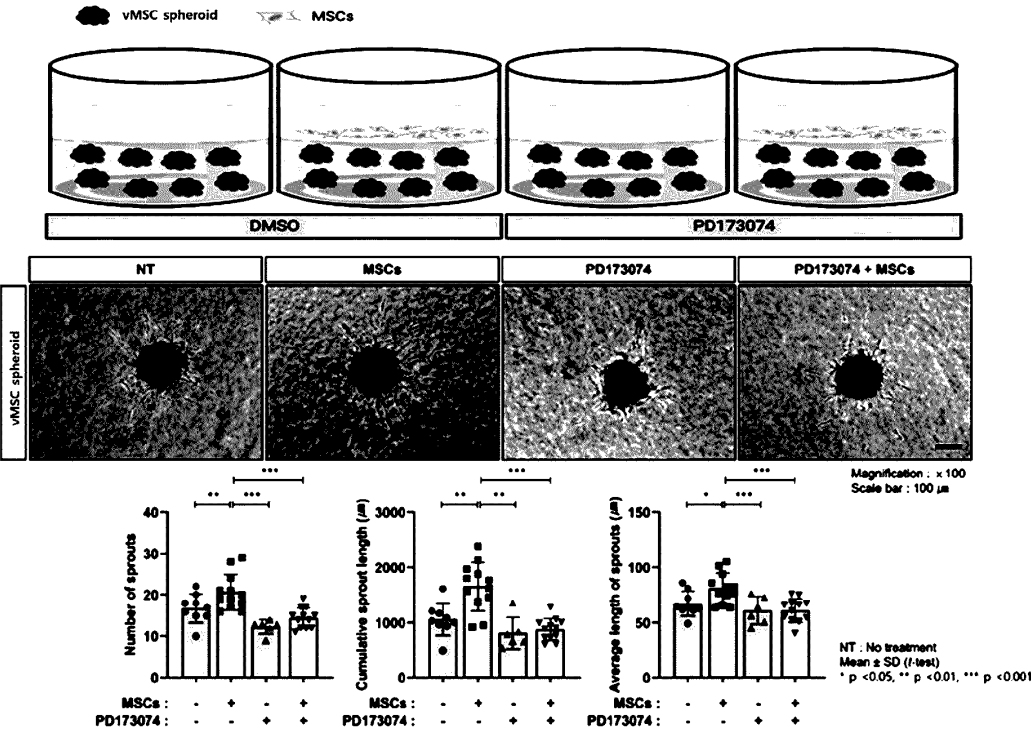
[도8a]



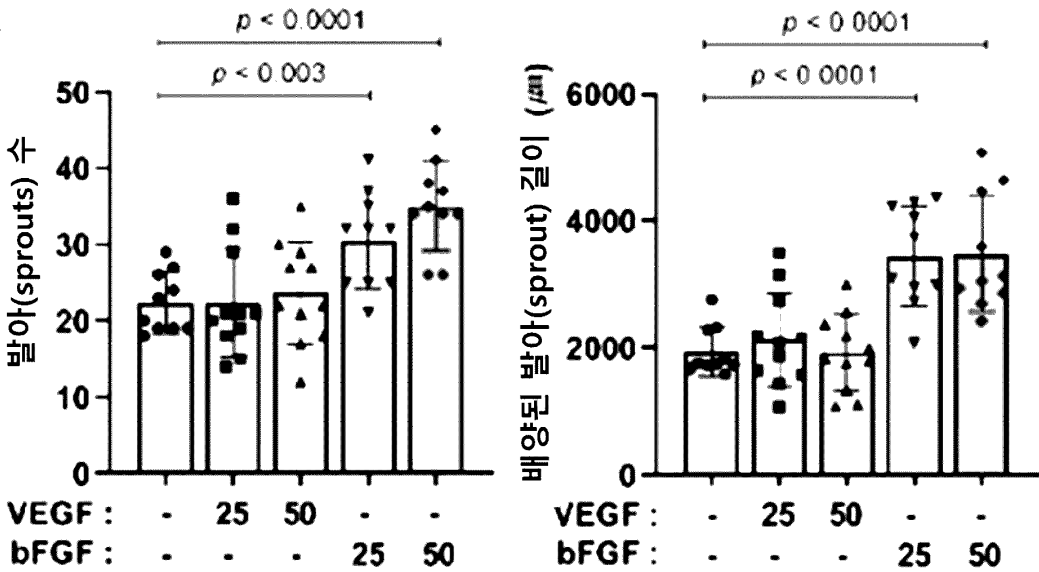
[도8b]



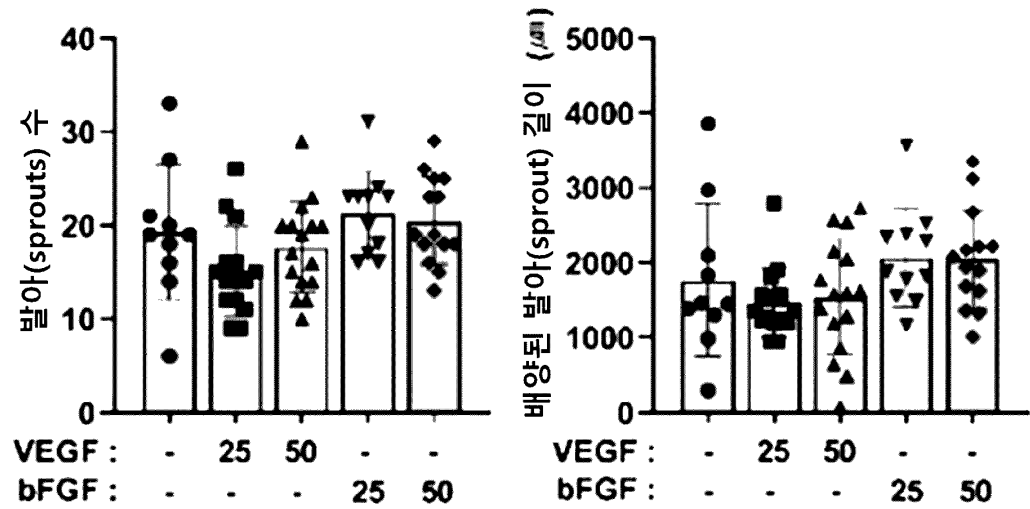
[도9]



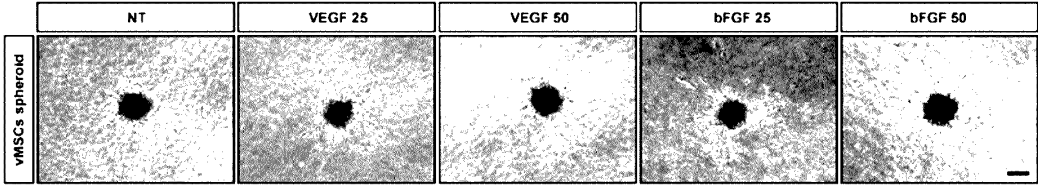
[도10a]



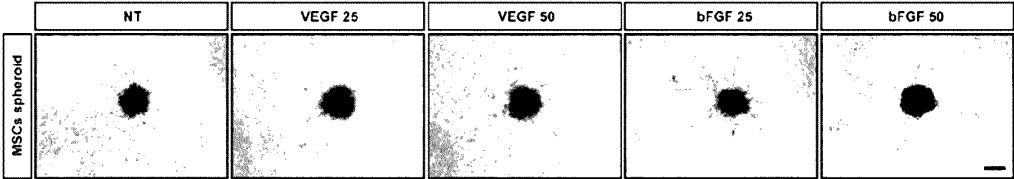
[도10b]



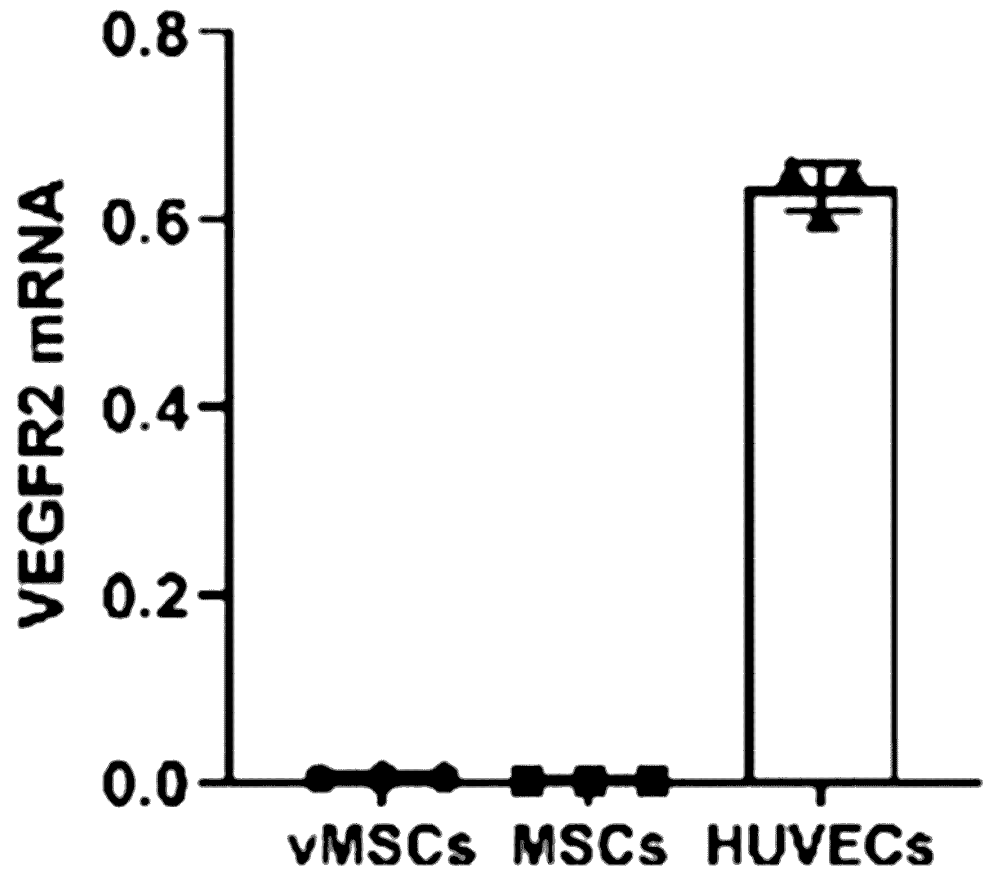
[도10c]



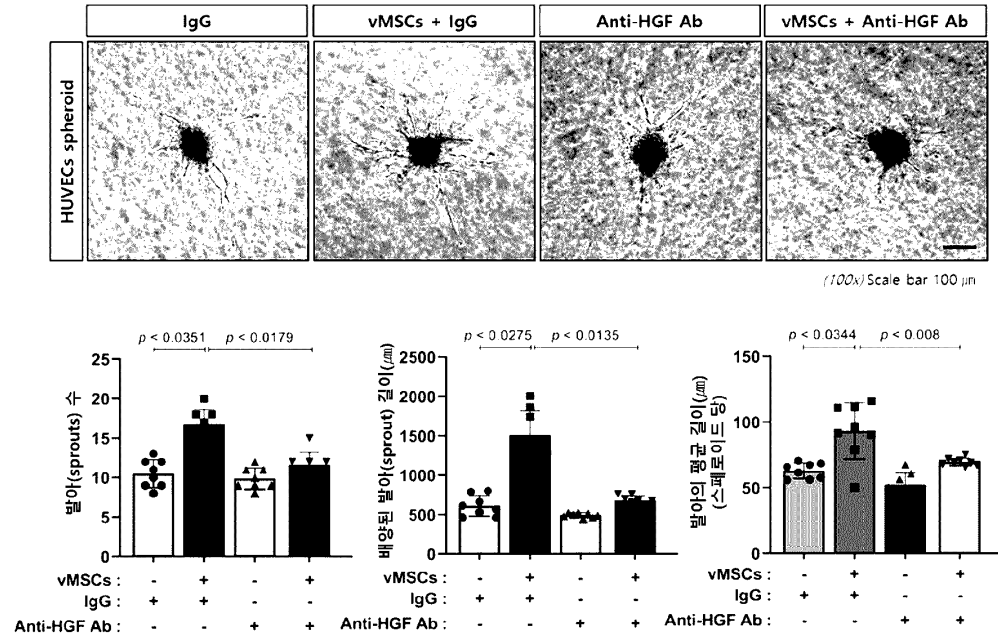
[도10d]



[도10e]



[도11]



[도12]

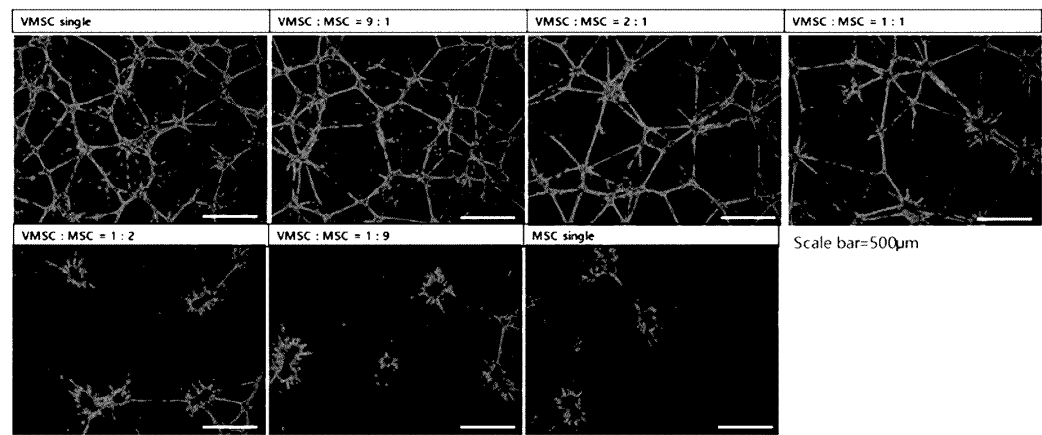
	혈관 내피 전구 세포			골수 유래 신규 동정 세포
	CFU-HILL [1, 2, 3, 4, 6]	CAC [2,4,5]	ECFC [3,2,4,7]	CD141+ vMSC
근원	말초혈액의 단핵구 세포	제대혈의 단핵구 세포	말초혈액 또는 제대혈의 단핵구 세포	골수 흡인액의 단핵구 세포
분리 방법	피브로넥틴 코팅된 배양접시에서 (2일) 비부착 세포 집단	피브로넥틴 코팅된 배양접시에서 (4~7일) 부착 세포 집단	라트 1형 콜라겐 코팅된 배양접시에서 (1일) 부착 세포 집단	세포외기질 코팅된 배양접시에서 (1일) 부착 세포 집단
콜로니 등장 시간	4~9일	콜로니 형성 안됨	7~21일	4~7일
형태	둥근 세포를 중심핵으로 하여 방사상으로 뻗어 있는 가늘고 긴 발아 세포	조약돌	조약돌	방추형
자가 복제 분열	-	-	+	+
재접종 능력 (계대배양)	-	-	+	+
시험관내 혈관 형성	+/-	+/-	+	+
생체내 혈관 형성	-	-	+	+
파라크린 효과로 혈관신생 증진	+	+	+/-	+
CD34	+/-	+/-	+	-
CD45	+/-	+/-	-	-
CD133 (Prominin-1)	+	+	-	-
CD309 (VEGFR2, KDR)	+	+	+	-
CD144 (VE-cadherin)	+/-	+	+	-
CD31 (PECAM)	+	+	+	-
acLDL 흡수 여부	예	예	예	예
UEA-1 력틴 부착 여부	예	예	예	예
eNOS	+	+	+	-
Von Willibrand Factor	+	+	+	+

CFU-HILL: Colony forming unit-Hill & CFU-endothelial cell(EC)

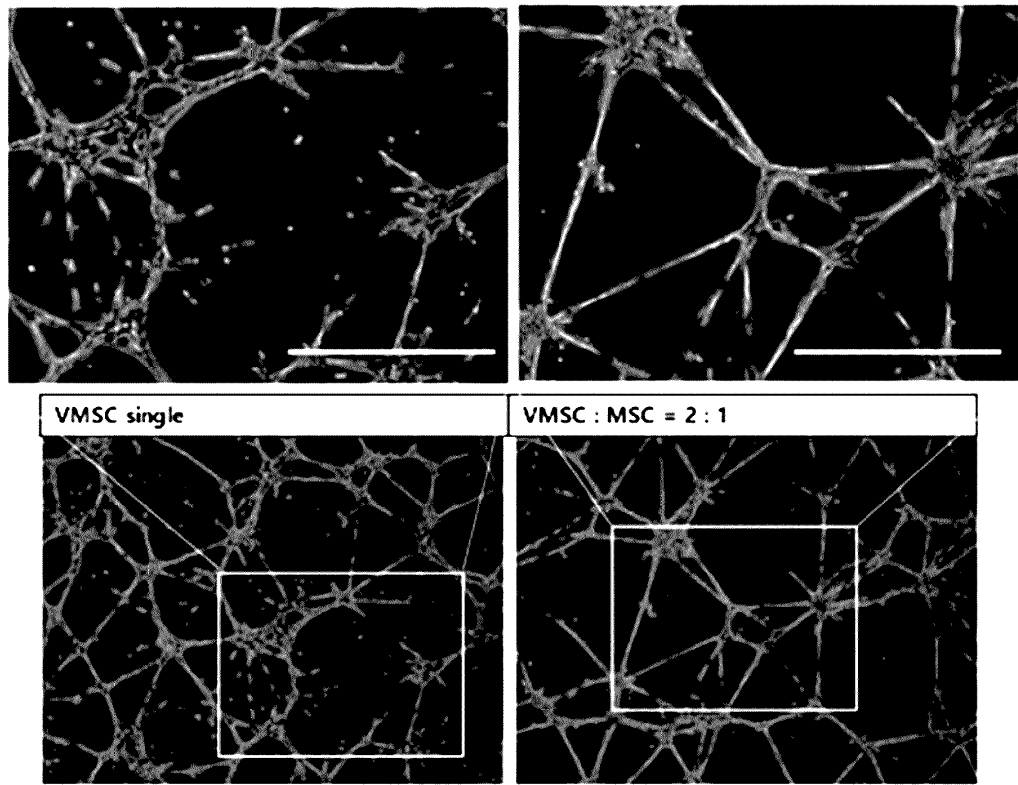
CAC: Circulating Angiogenic Cells

ECFC: Late outgrowth endothelial cells (OECs) or endothelial colony-forming cells (ECFCs)

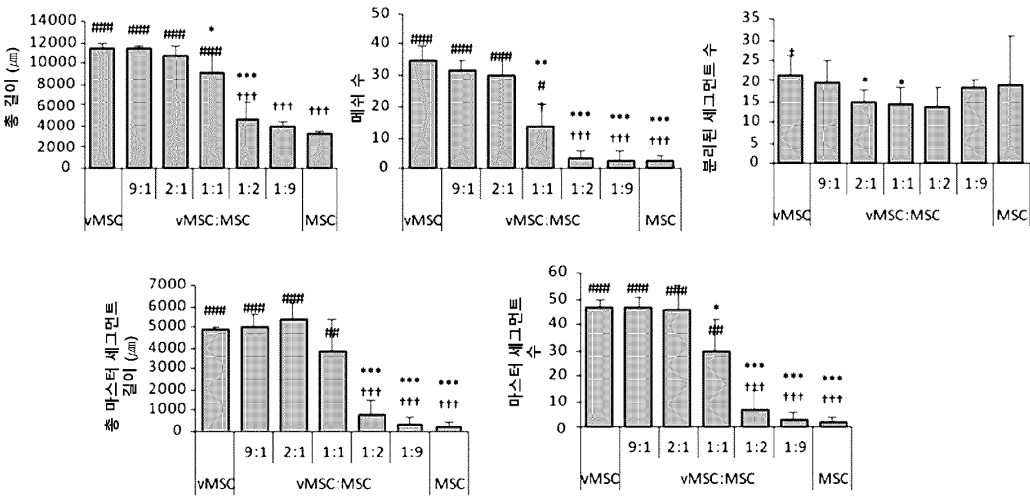
[도13a]



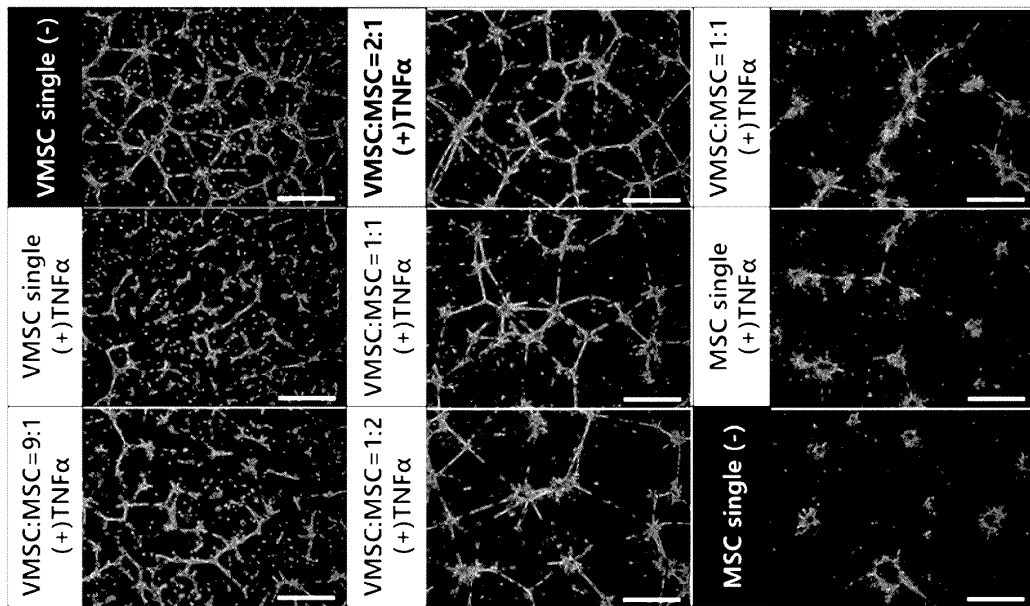
[도13b]



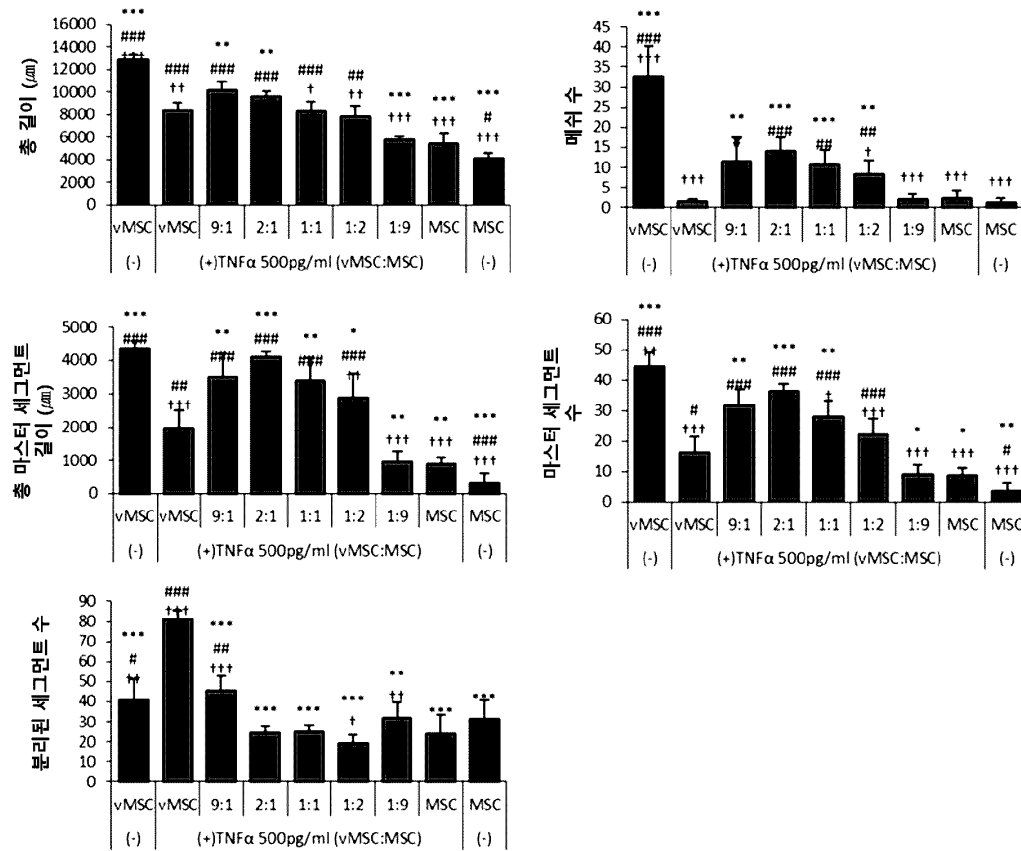
[도13c]



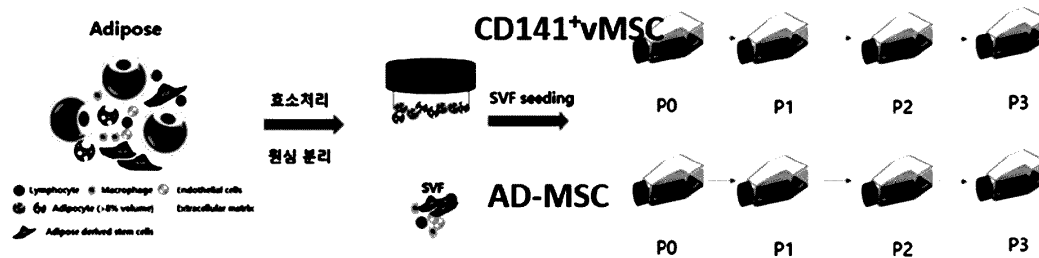
[도14]



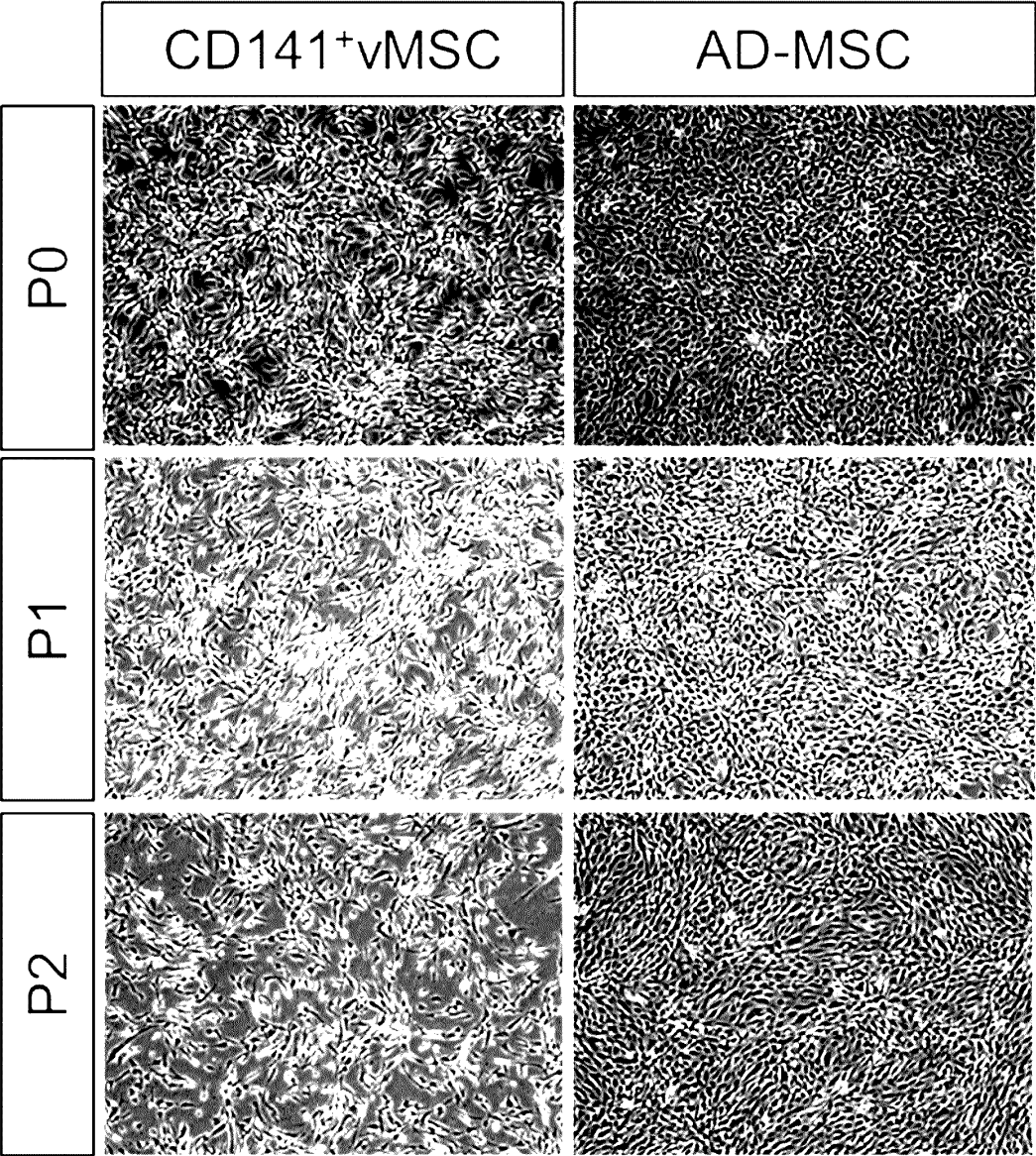
[도 14b]



[도 15]

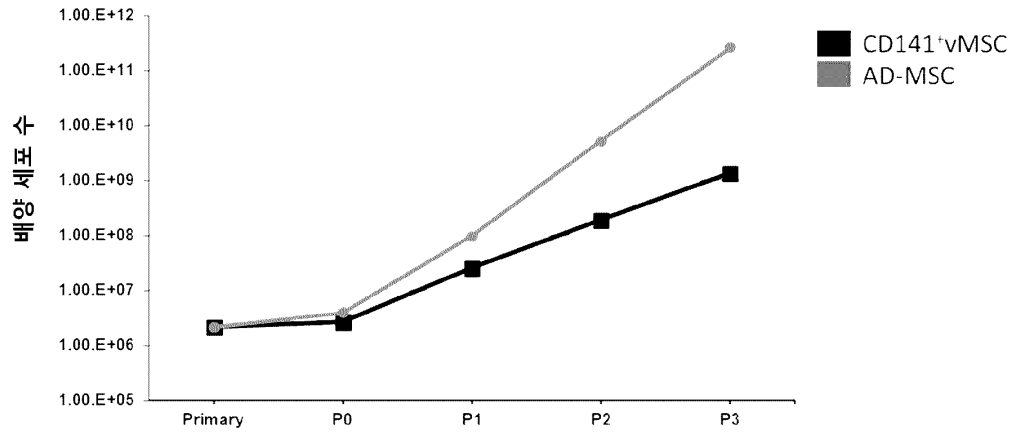


[圖16]

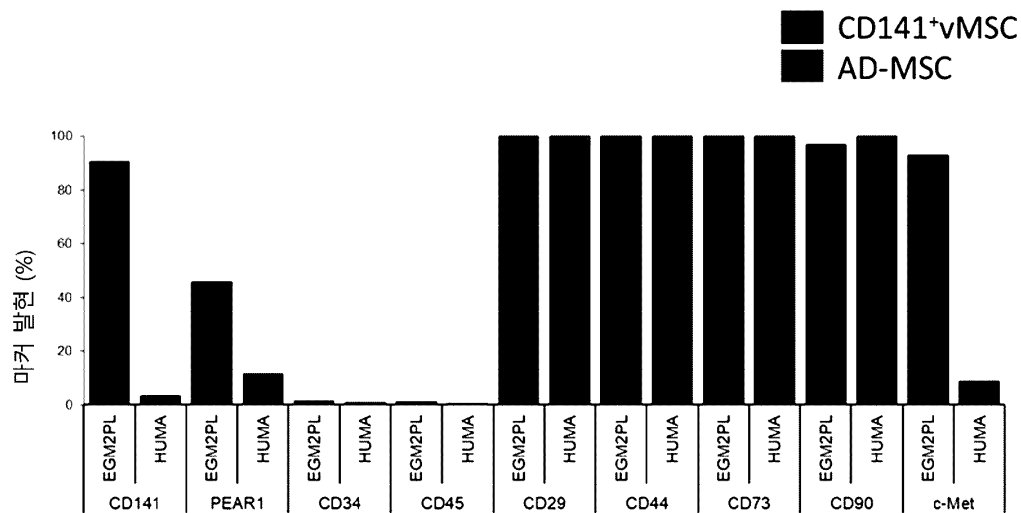


[도17]

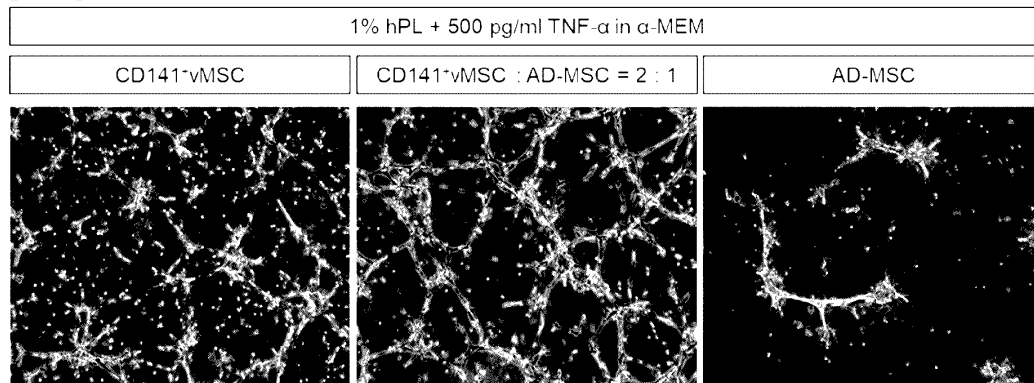
배양 세포 수 (SVF 2.16×10^6 기준)

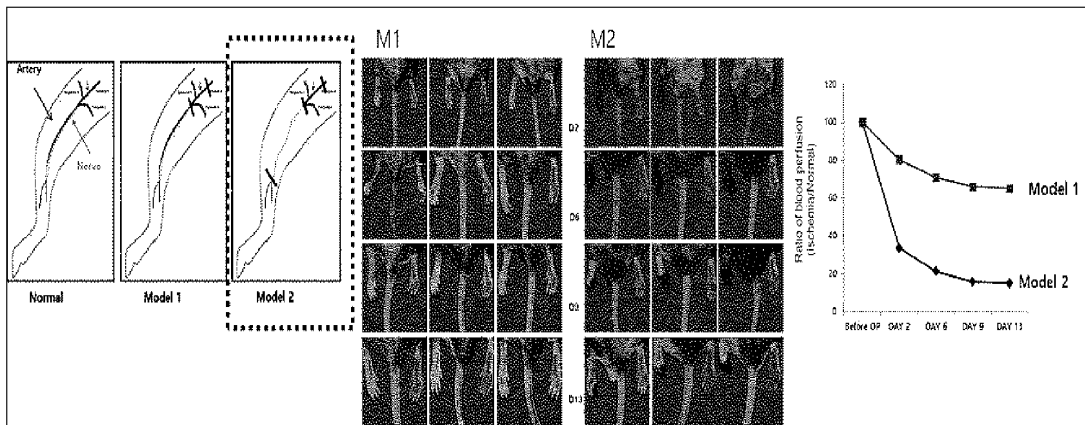


[도18]

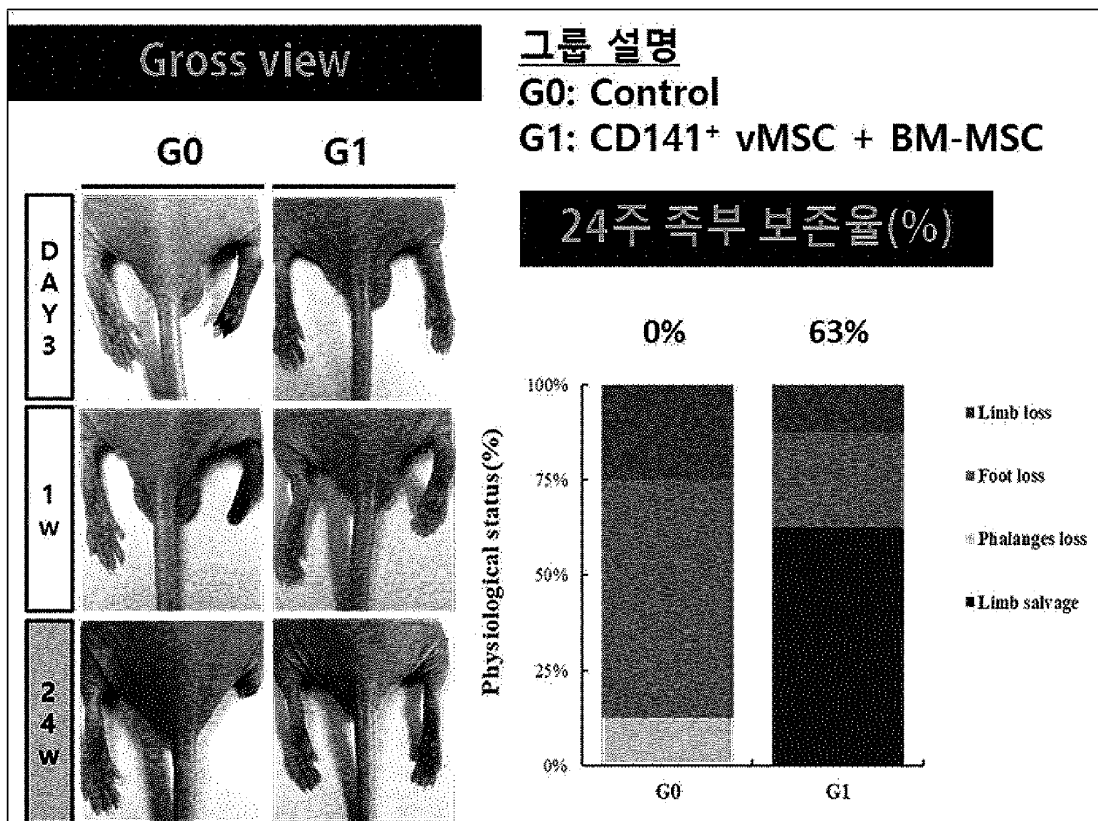


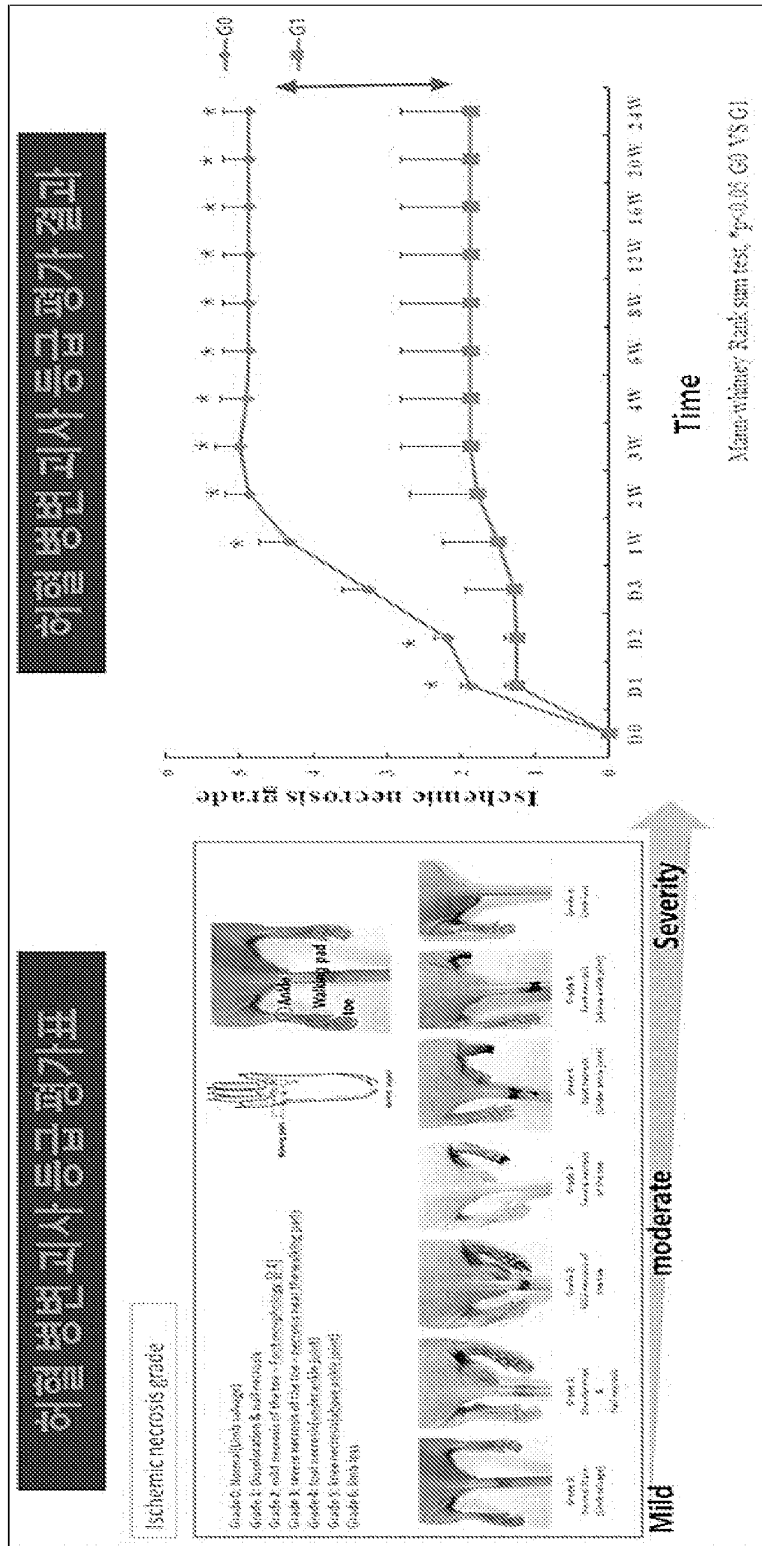
[도19]



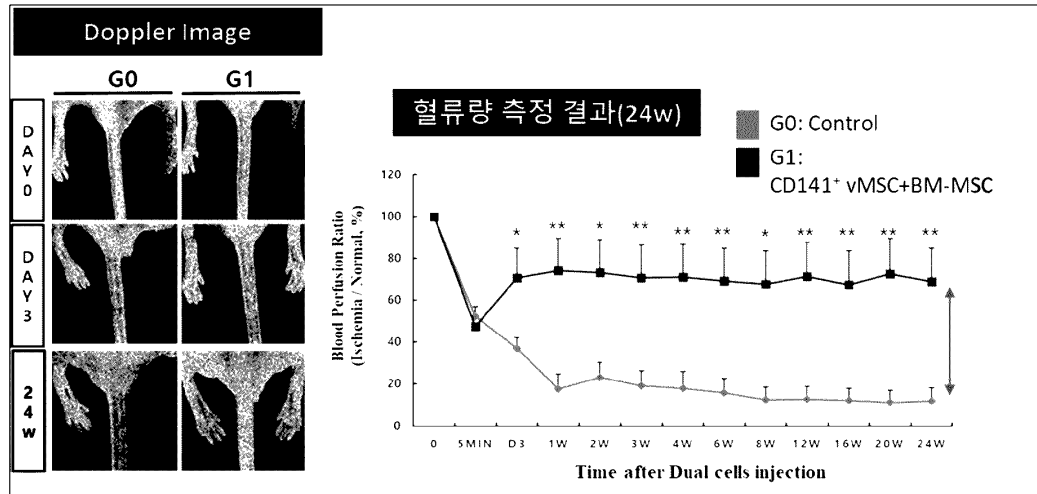


[도21]

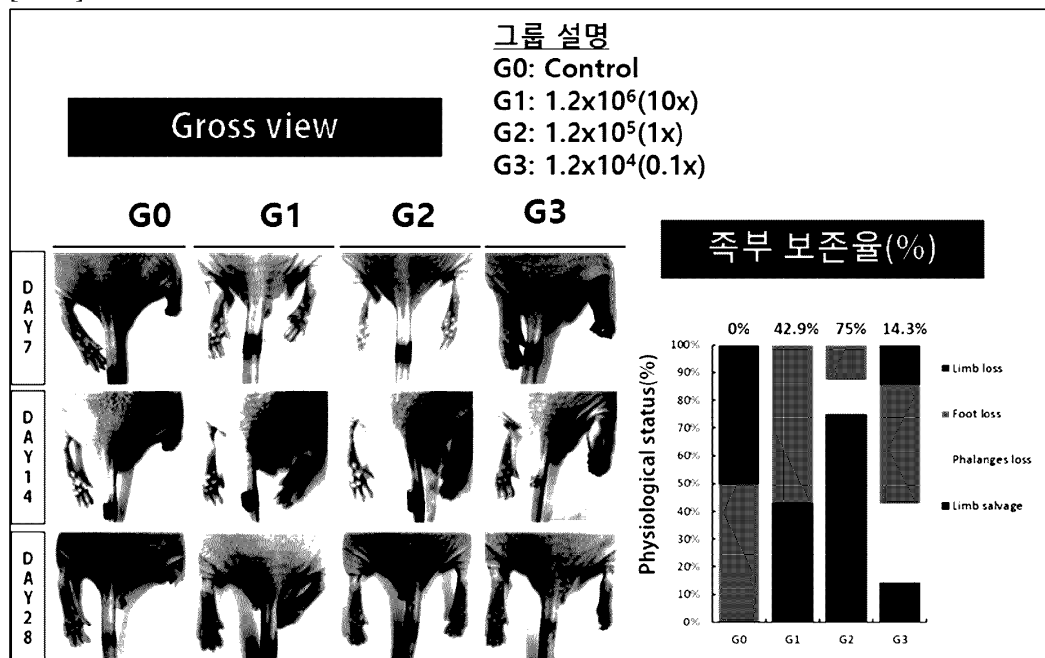




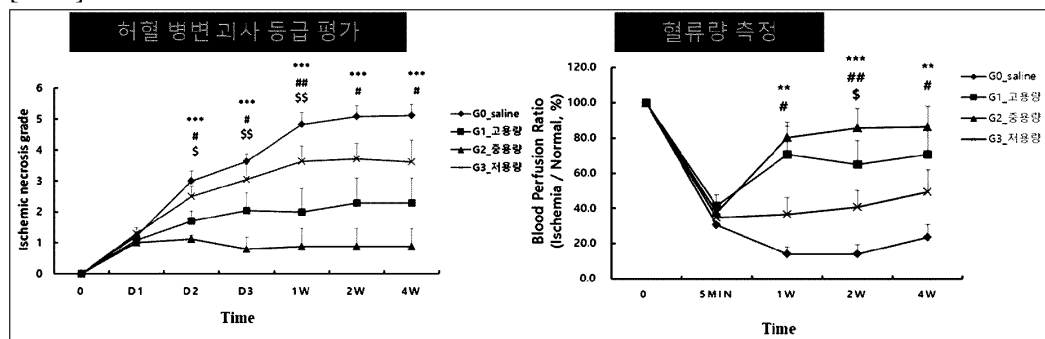
[도23]

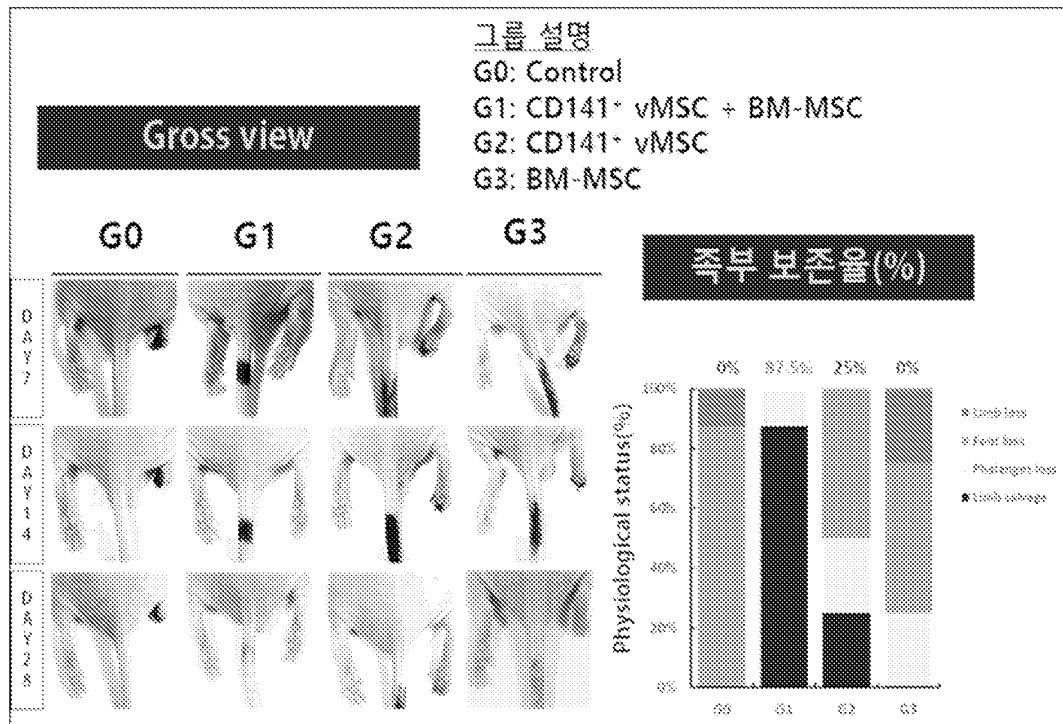


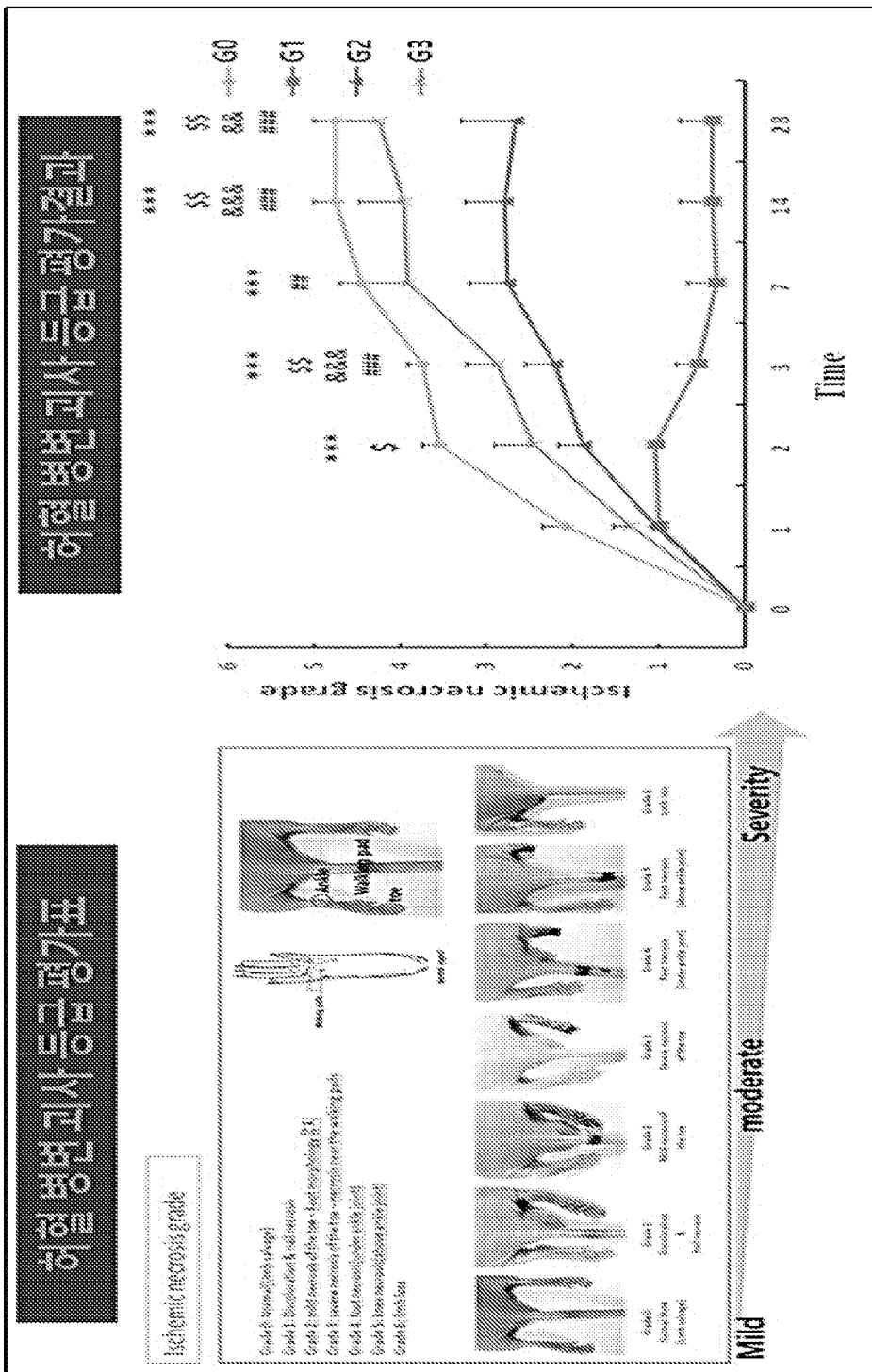
[도24]

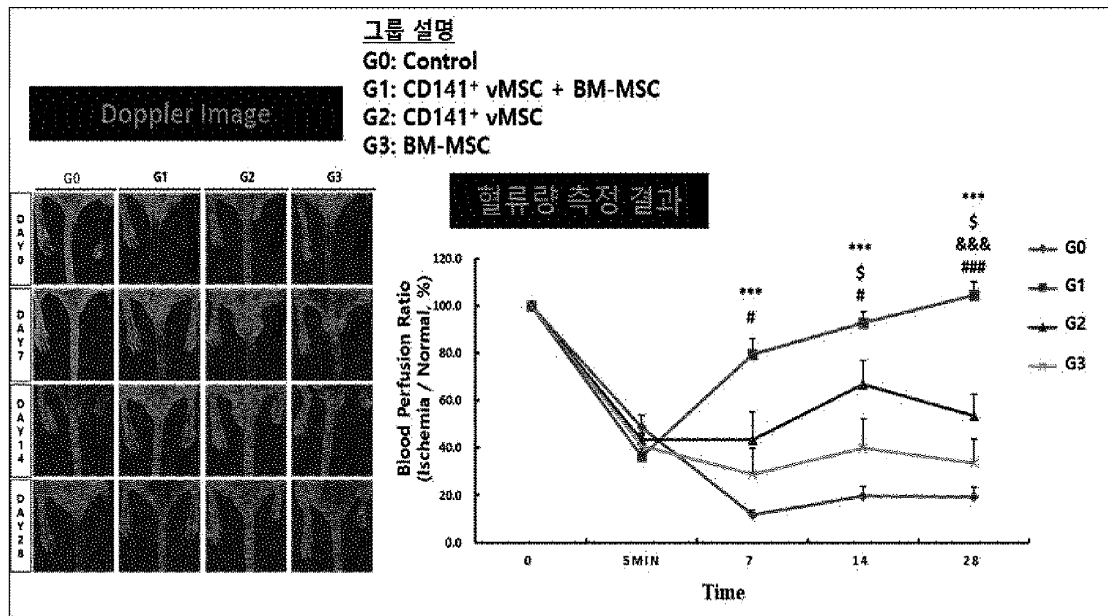


[도25]

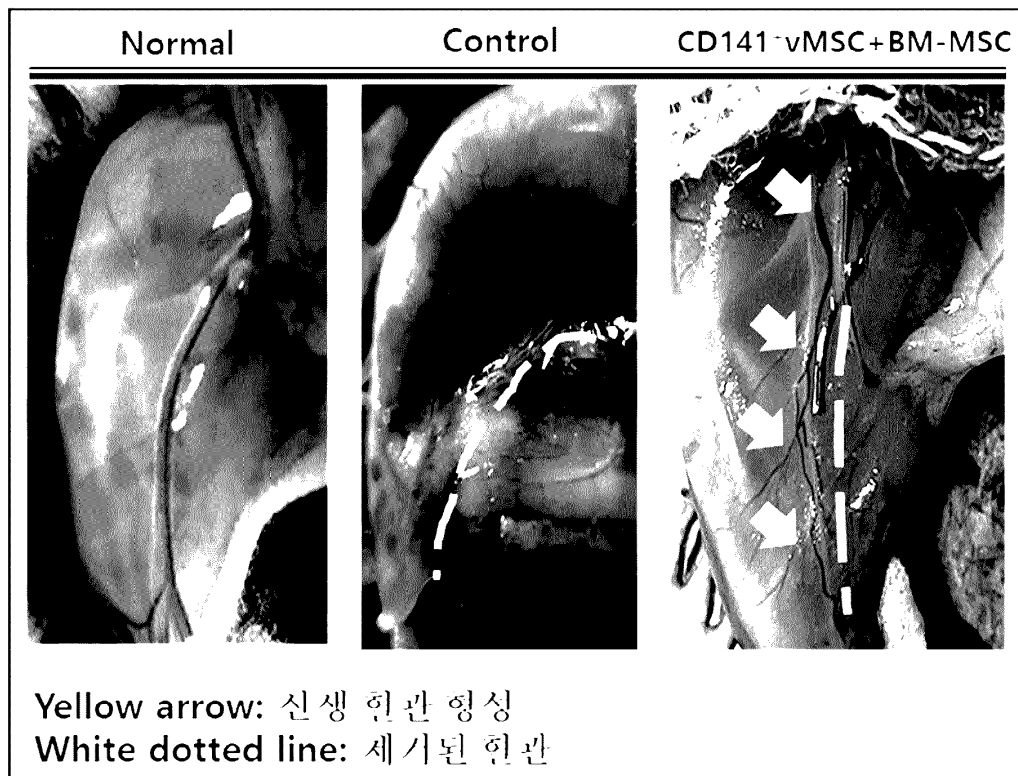




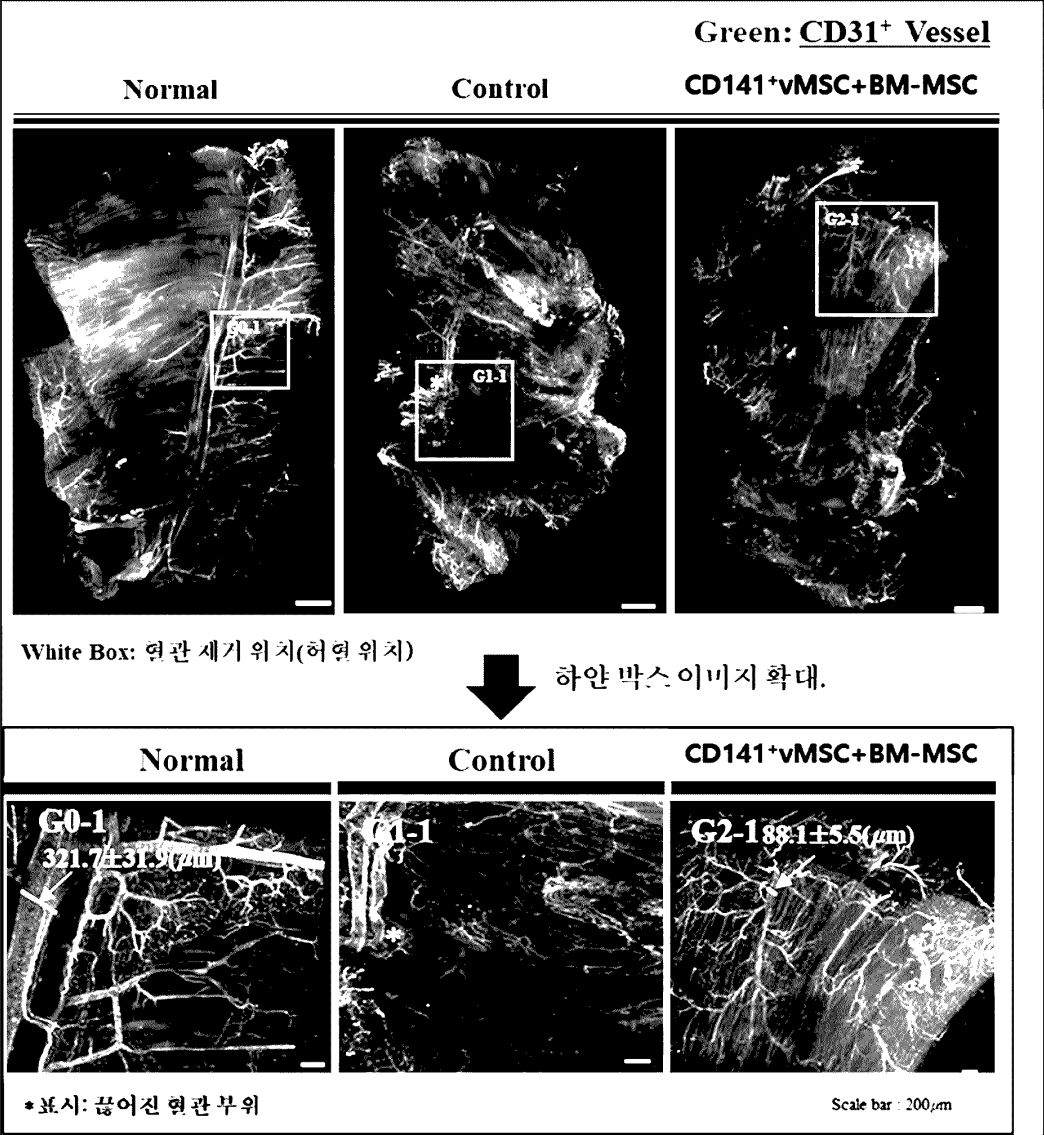




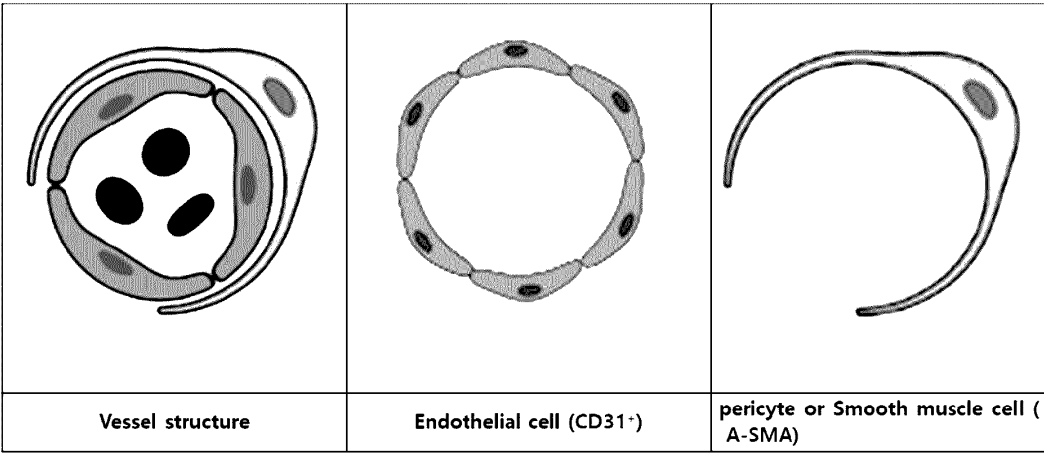
[도29]

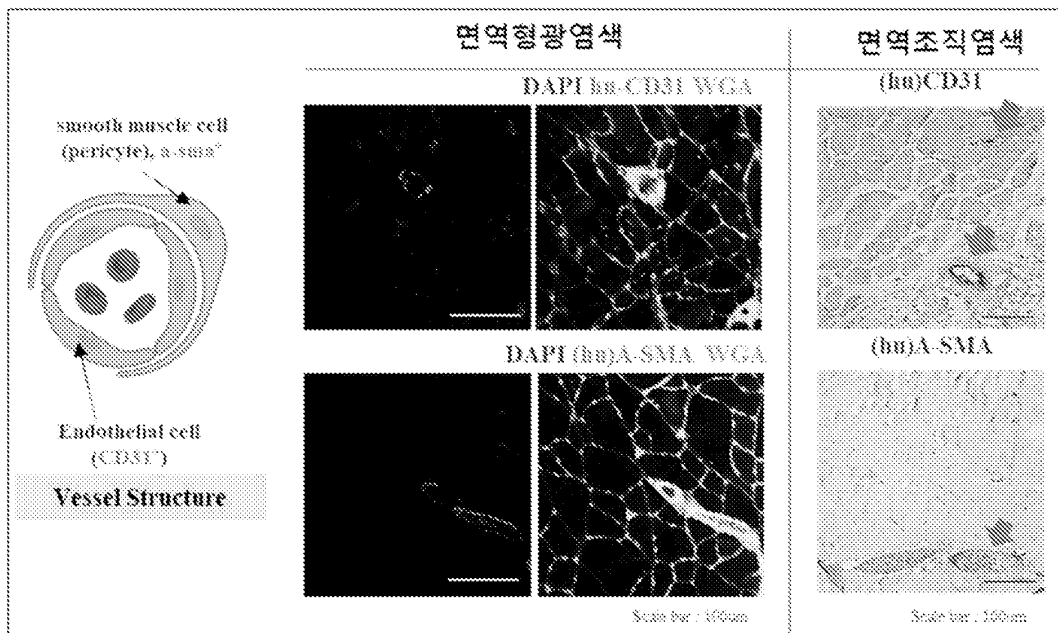


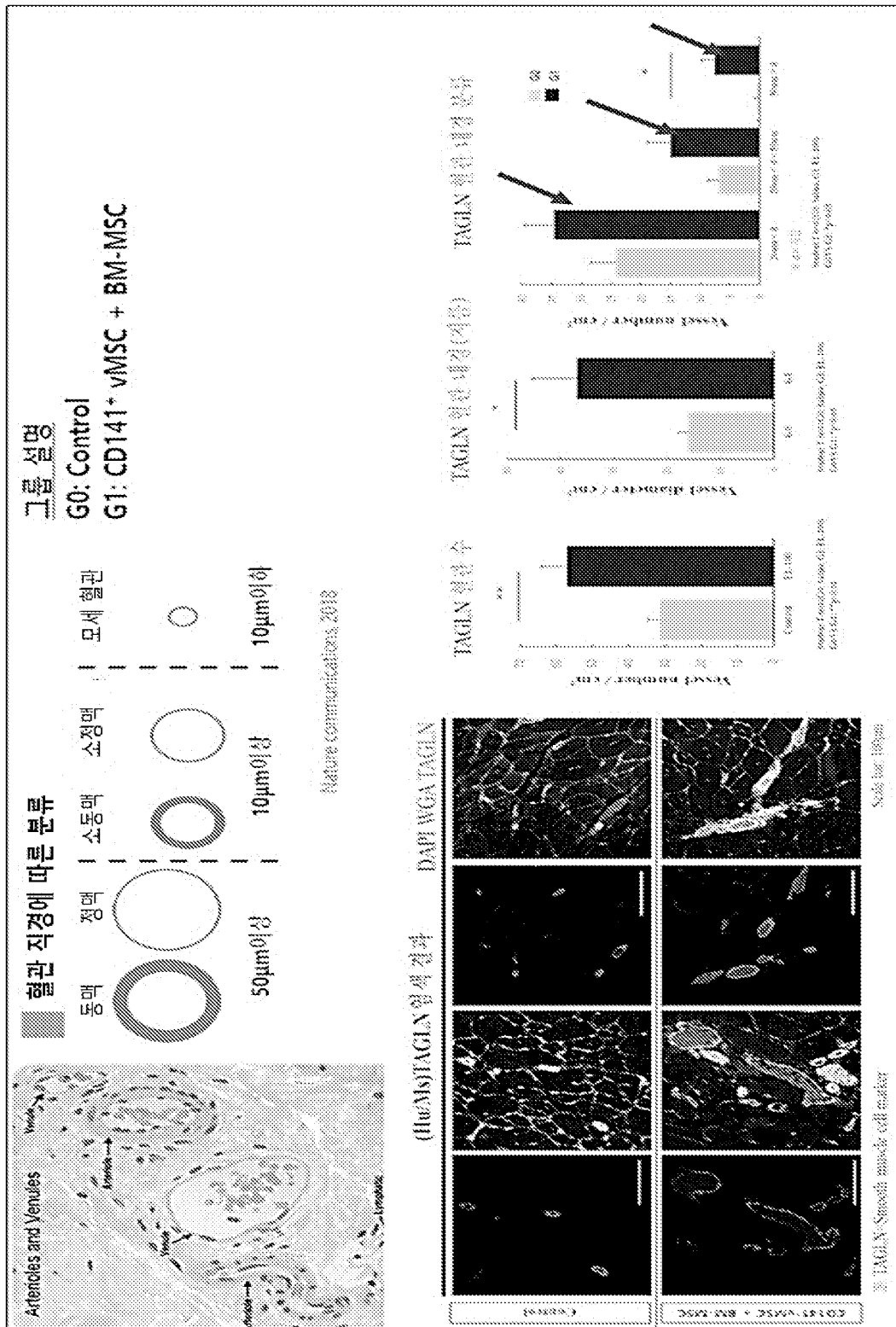
[도30]



[도31a]







[도33]

