FIGURE 1

A

1st Stage: High content image screening of 242 human cell surface markers

SC-ASC (S1) | VS-ASC (S1) | SC-ASC (Com) | BM-MSC | HFF

Potential SC markers
Potential VS markers

2nd Stage: Validation of candidate cell surface markers selected by the 1st stage

SC-ASC (S1-S3) | VS-ASC (S1-S3) | SC-ASC (Com) | BM-MSC | HFF

Best SC marker candidate
Best VS marker candidate

3rd Stage: Establishment of cell surface markers for depot-specific ASCs

hSC-ASC (S1-S12) | hVS-ASC (S1-S12) | mSC-ASC (NC) | mVS-ASC (NC) | mSC-ASC (HFD) | mVS-ASC (HFD)

FIGURE 1 continued

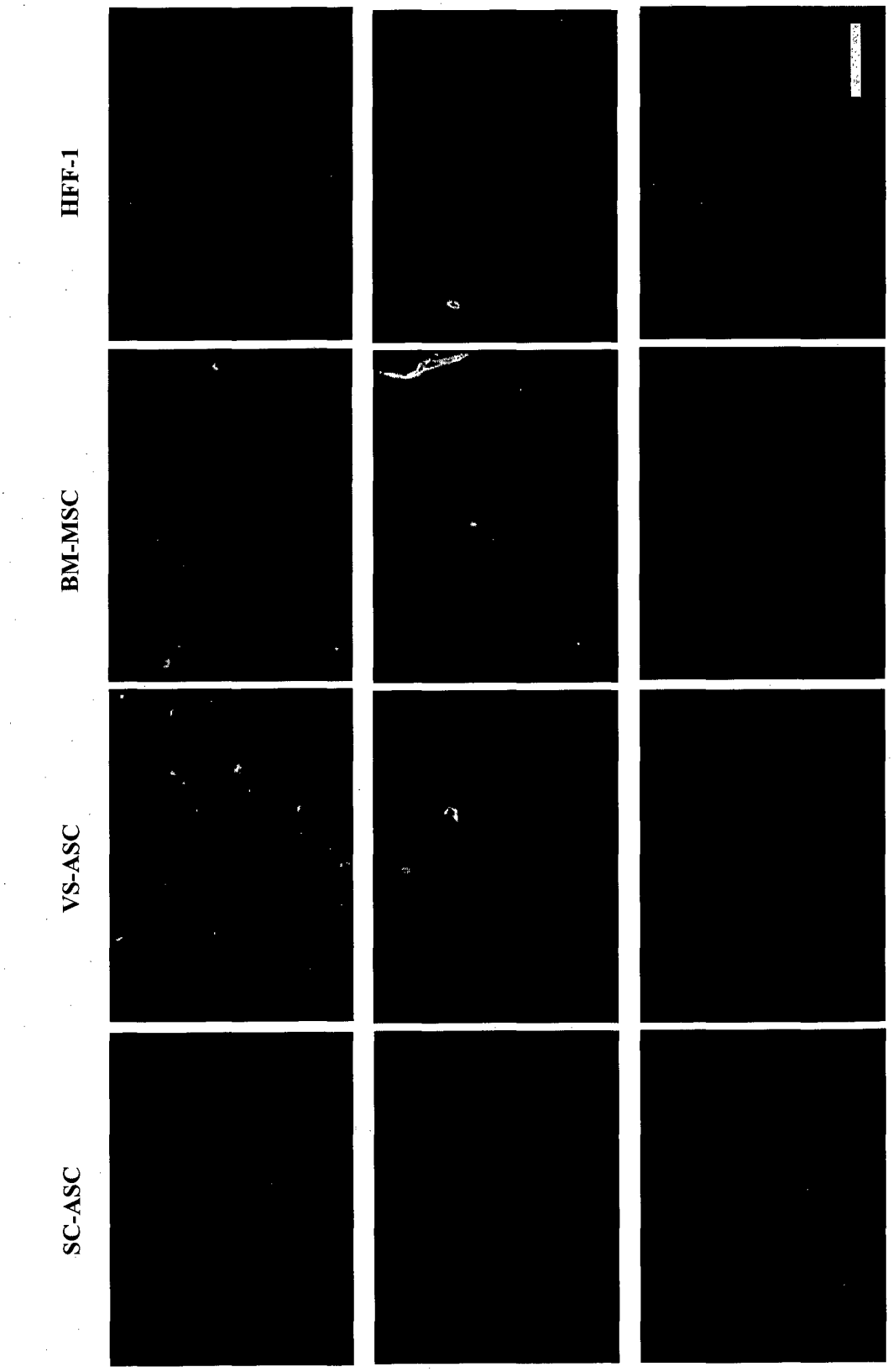


FIGURE 1 continued

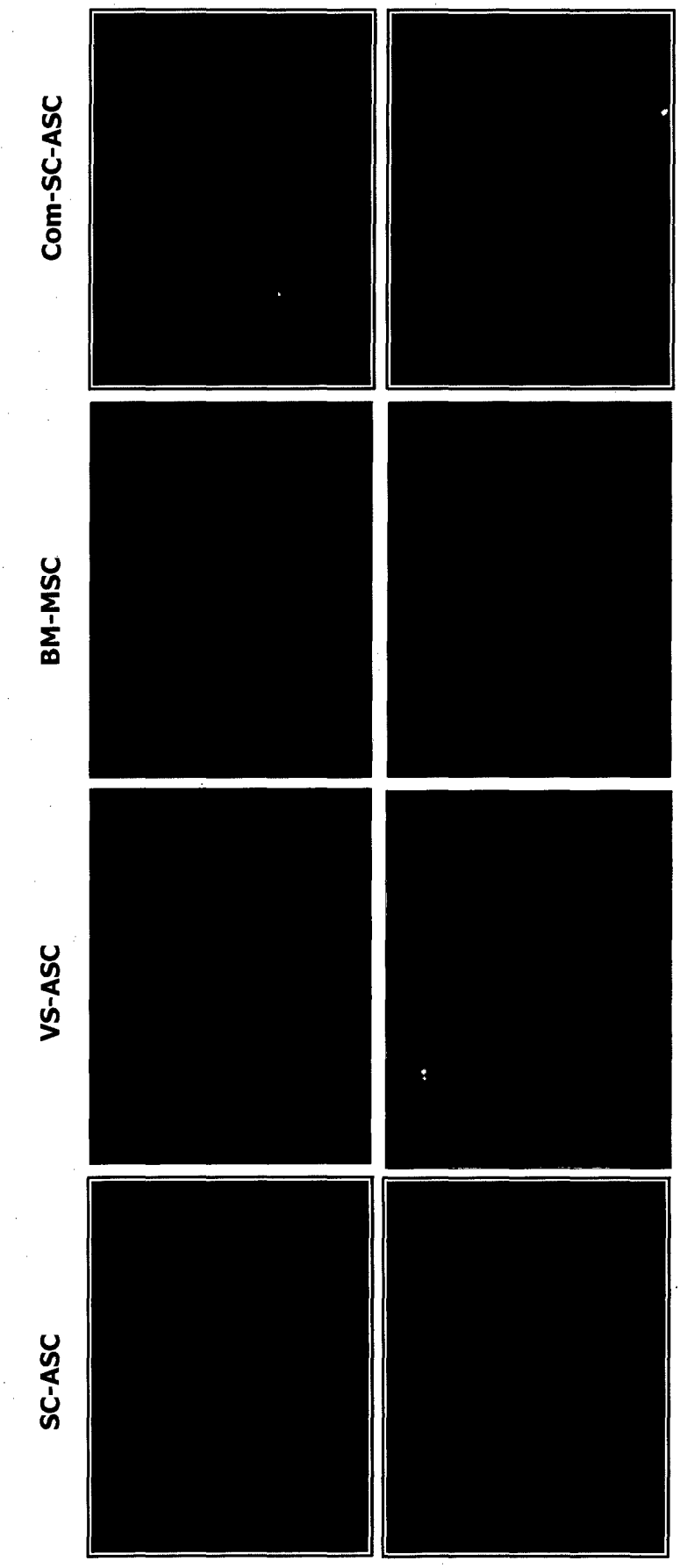


FIGURE 1C CONTINUED

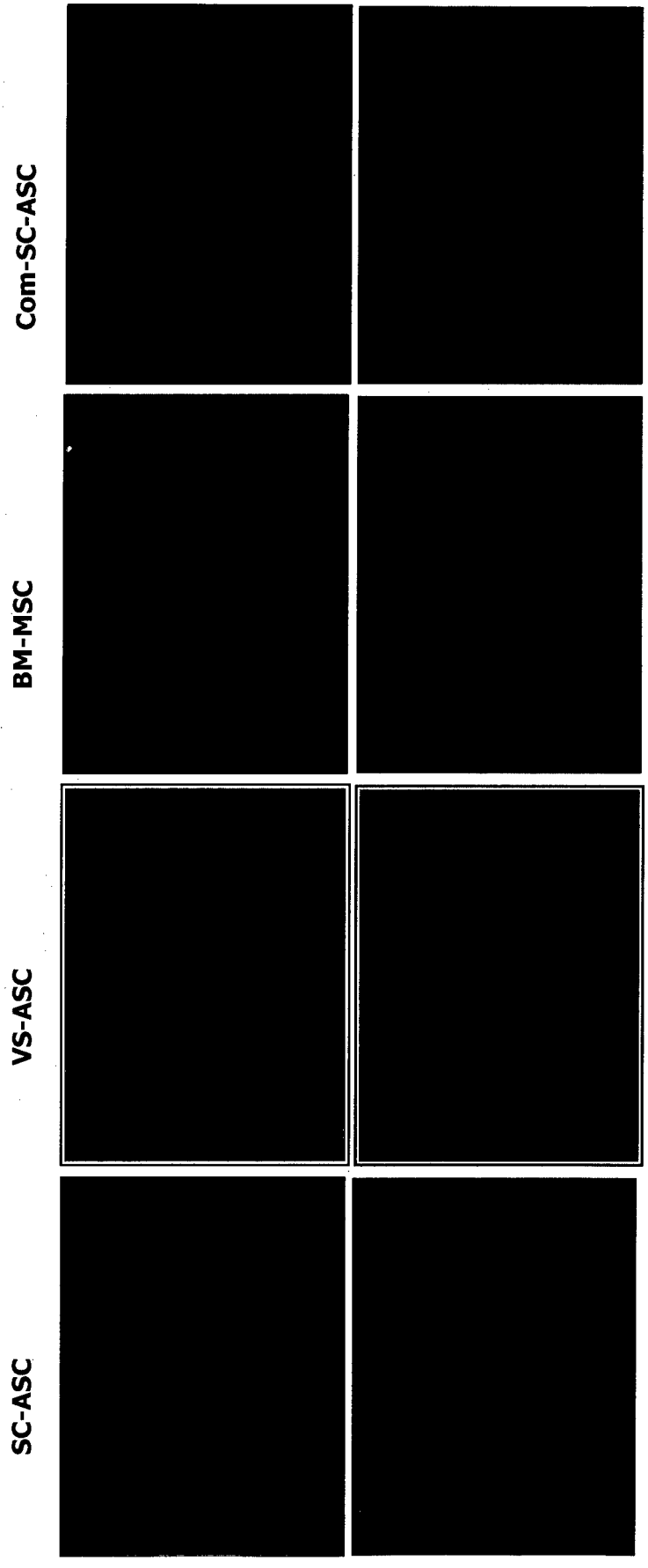
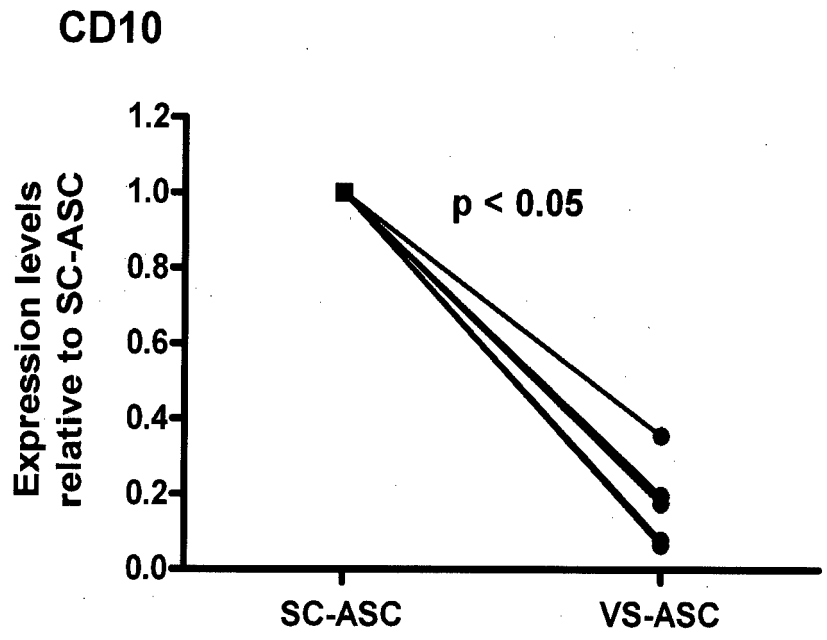


FIGURE 2

A


CD10
Expression levels relative to SC-ASC
1.2
1.0
0.8
0.6
0.4
0.2
0.0
p < 0.05
SC-ASC
VS-ASC

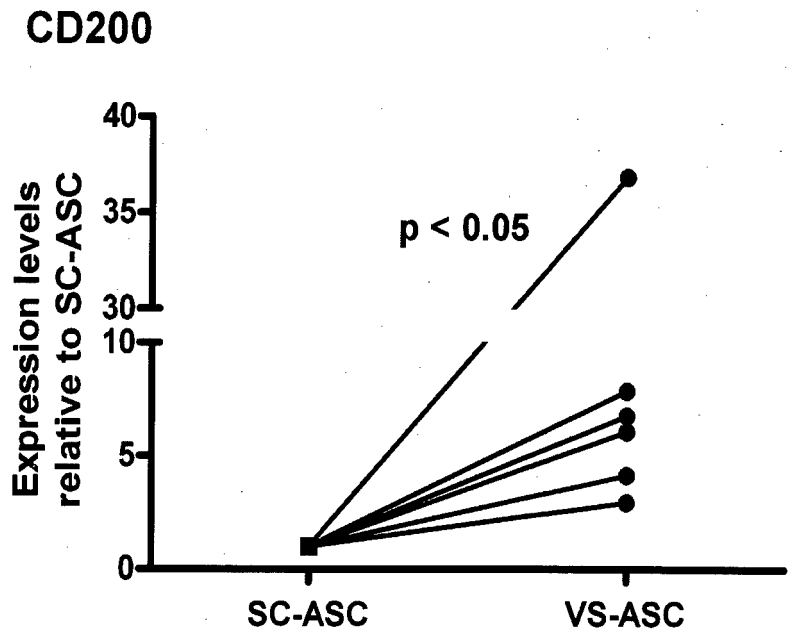

CD200
Expression levels relative to SC-ASC
40
35
30
10
5
0
p < 0.05
SC-ASC
VS-ASC

FIGURE 2 continued

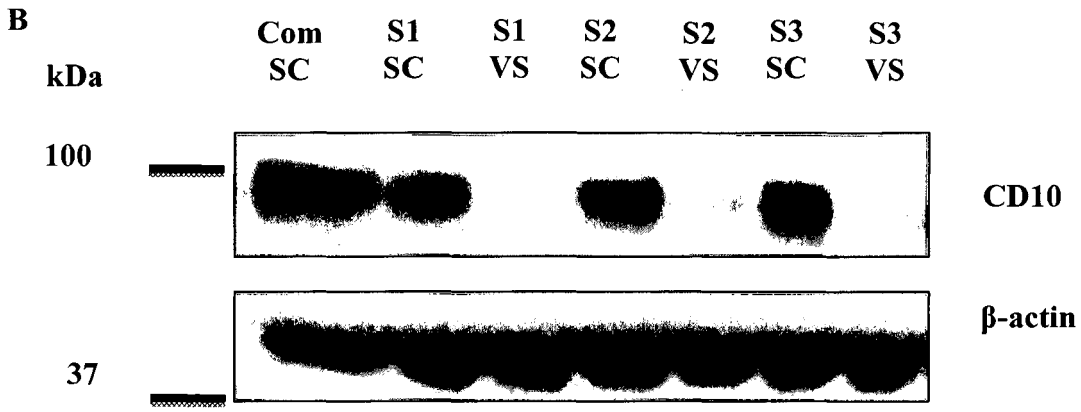


FIGURE 3

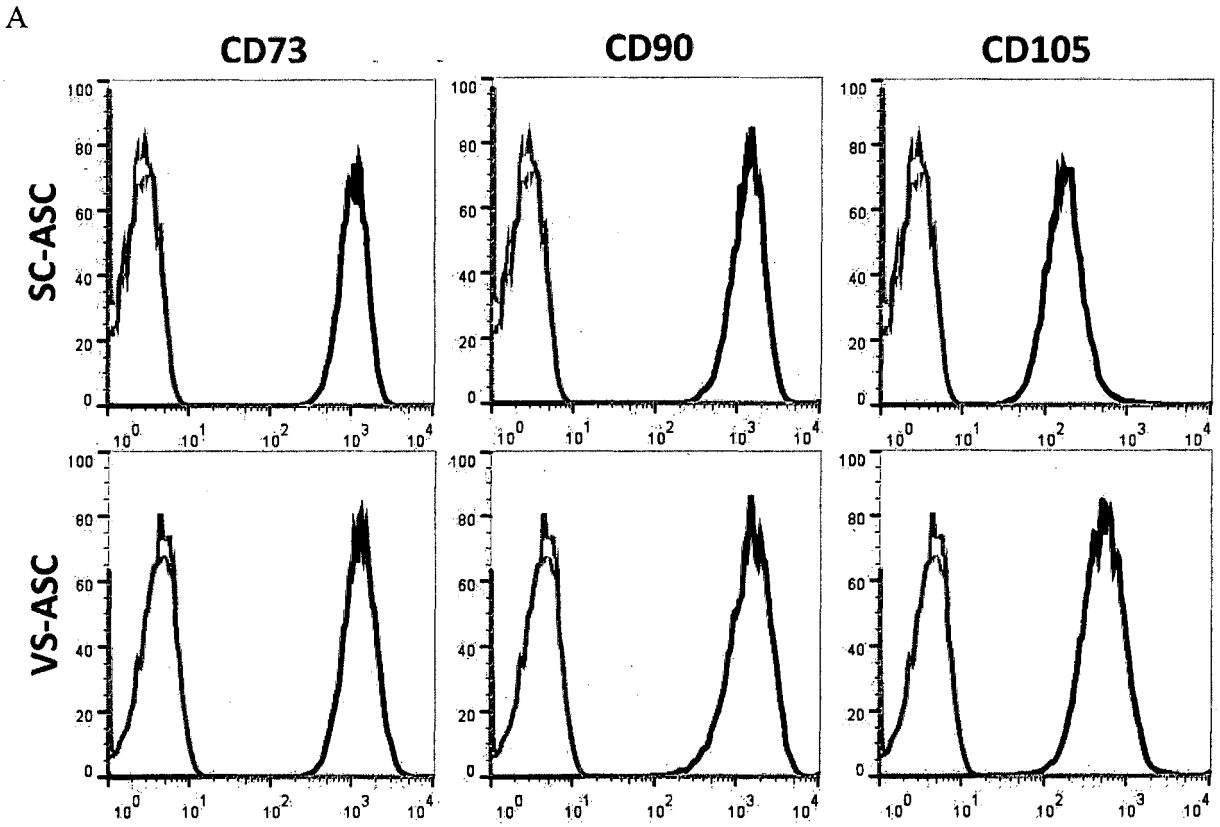


FIGURE 3 continued

B

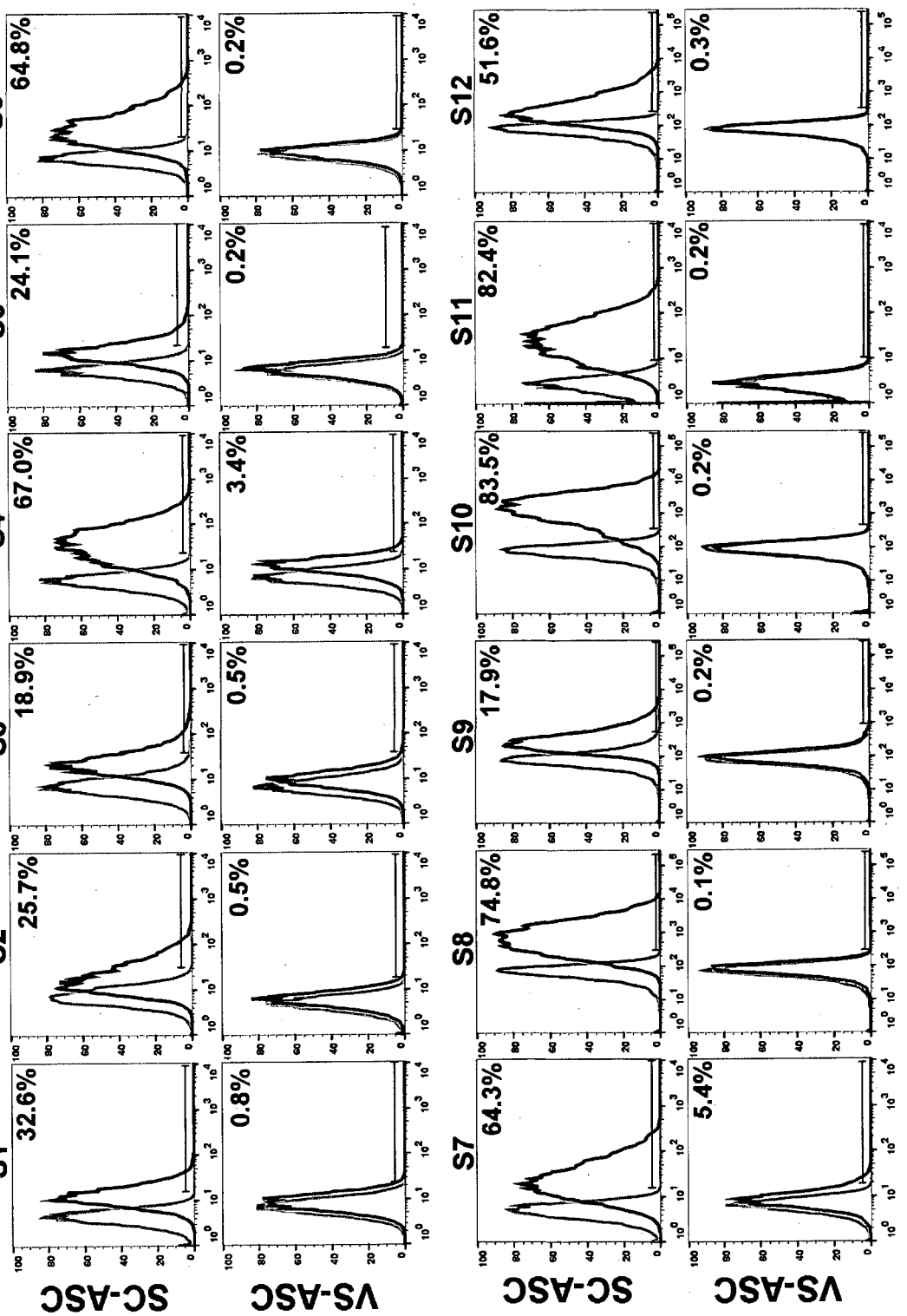


FIGURE 3 continued

C

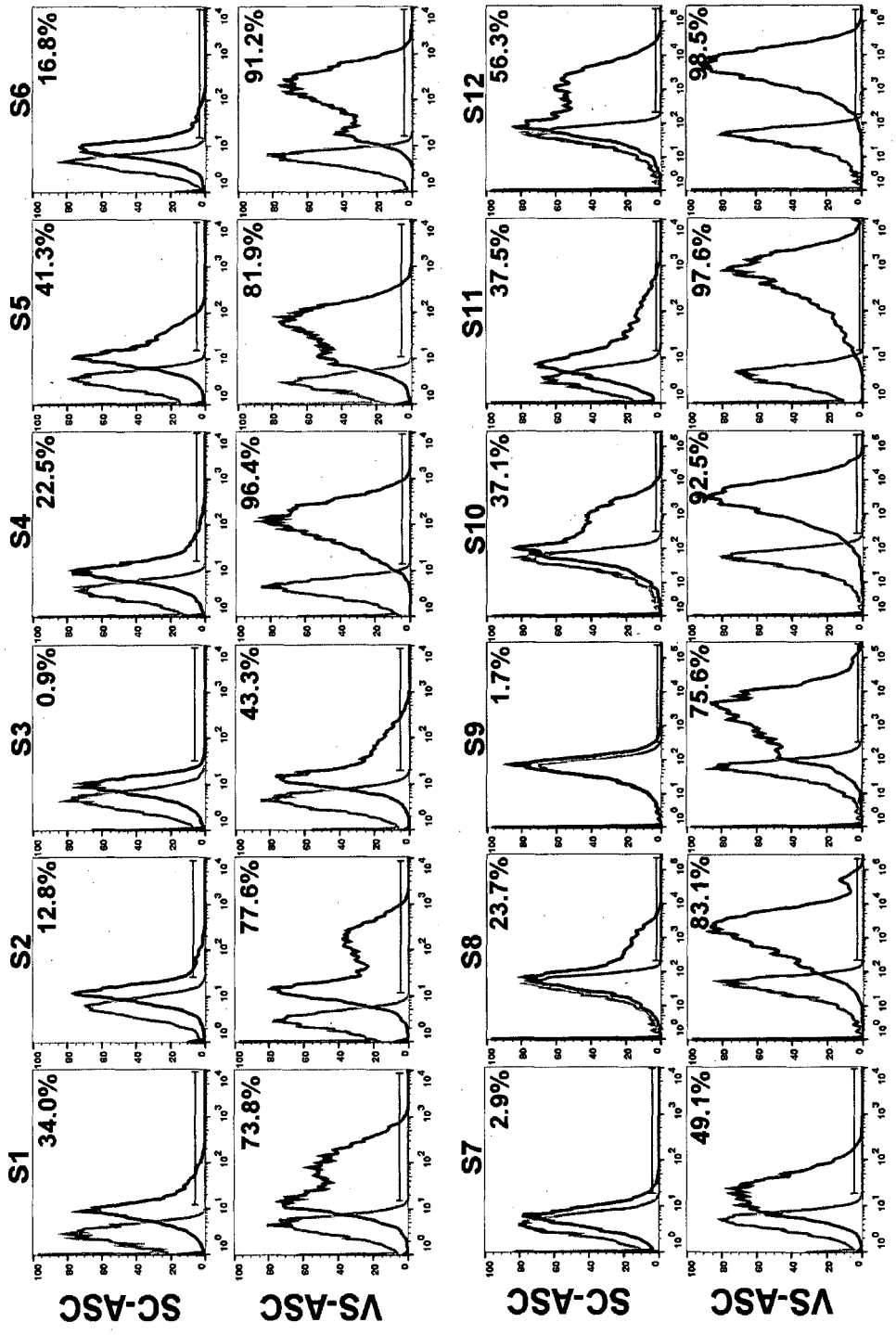


FIGURE 4

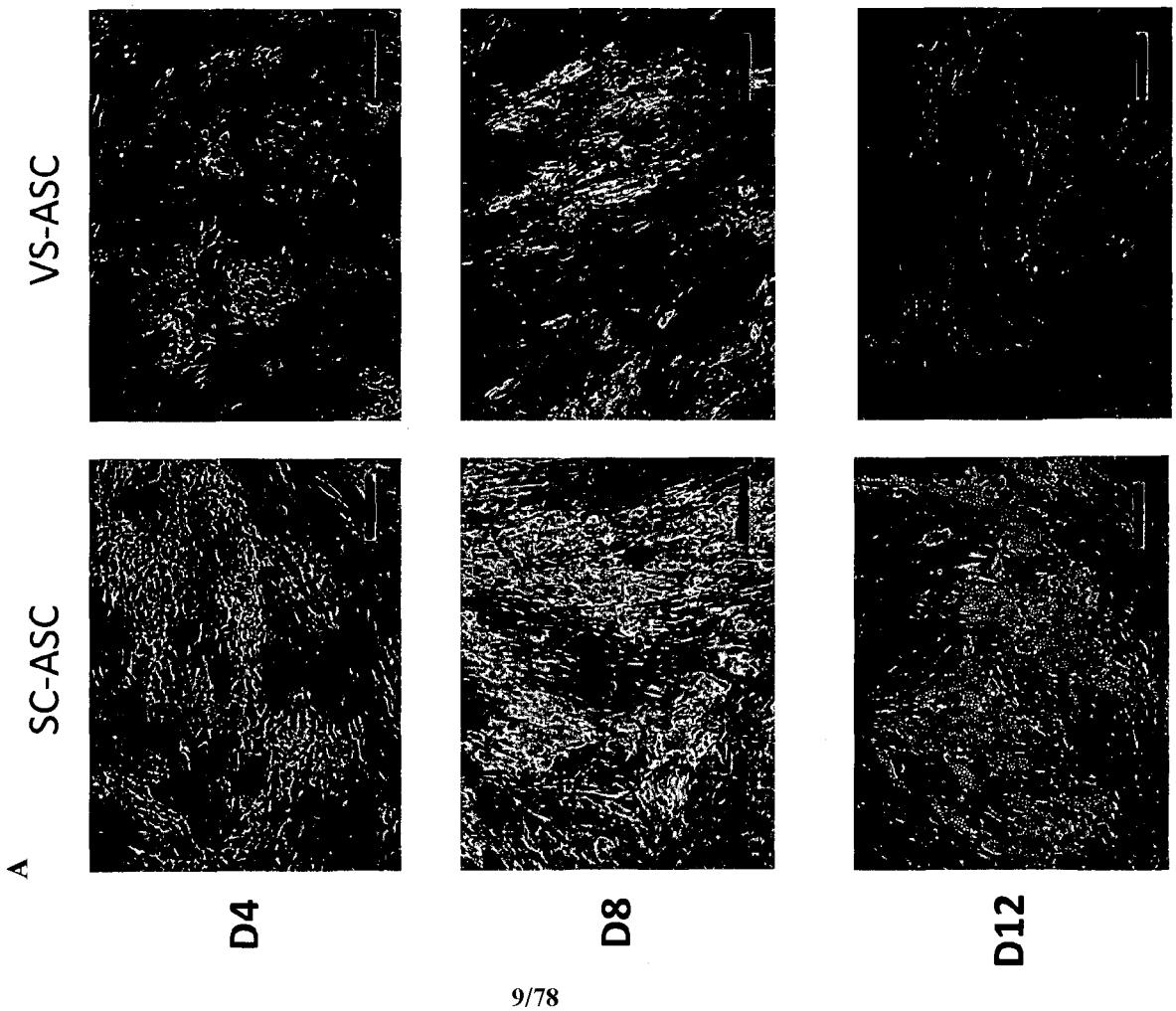

A
SC-ASC
VS-ASC
D4
D8
D12
CD10 relative expression
CD200 relative expression
SC-ASC
VS-ASC
D0
D4
D8
D12

FIGURE 4 CONTINUED

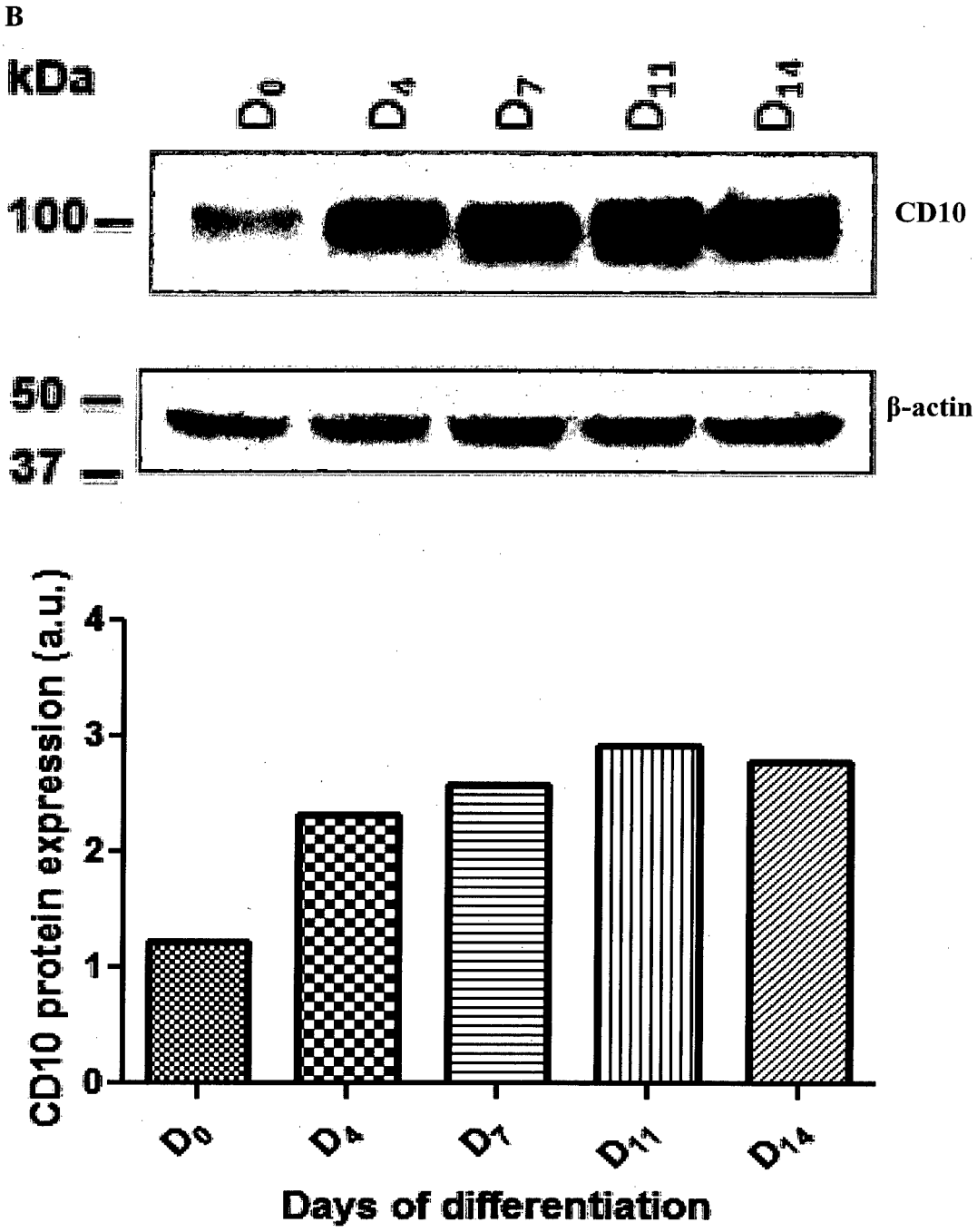


FIGURE 4 continued

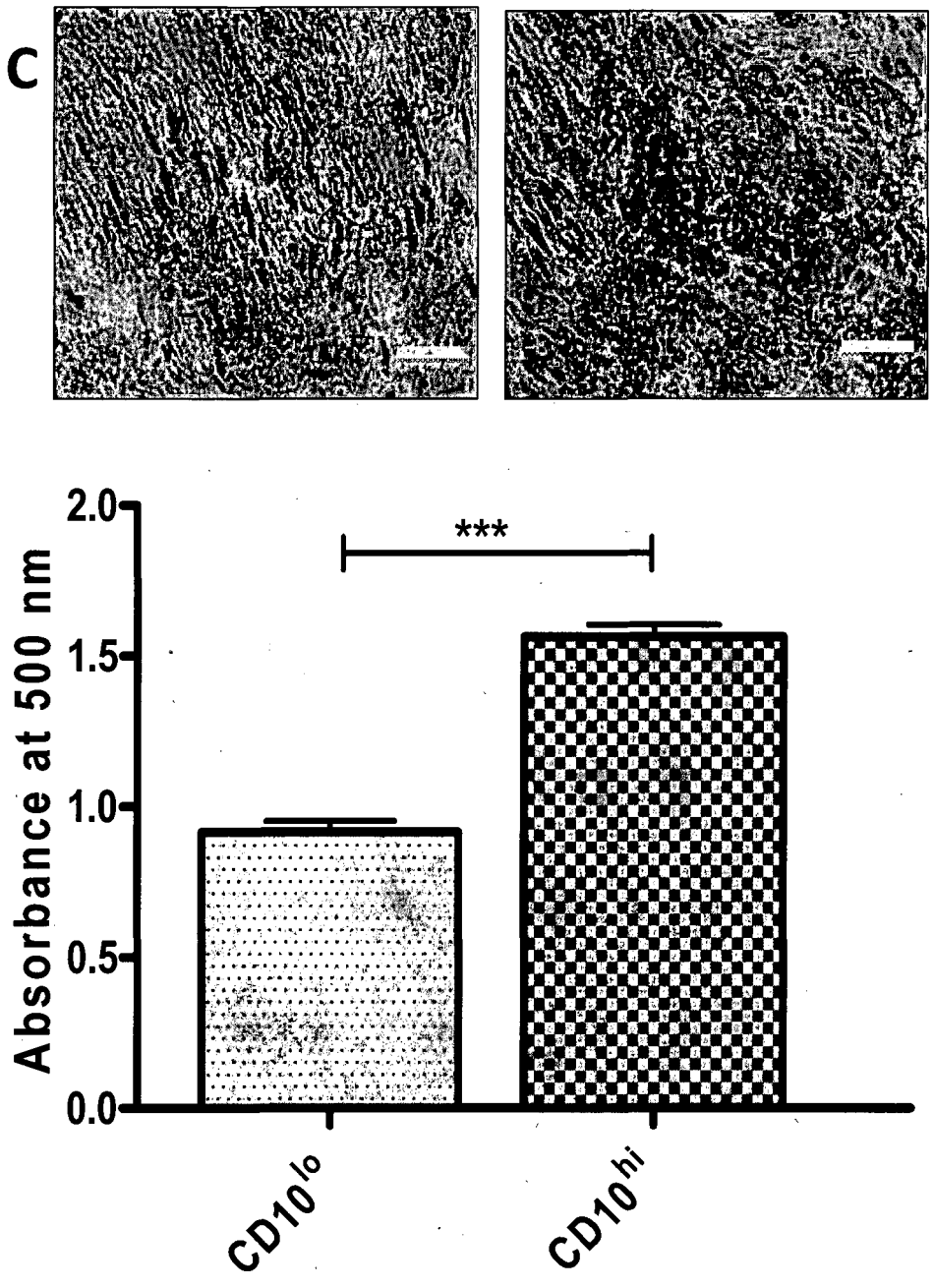


FIGURE 4 continued

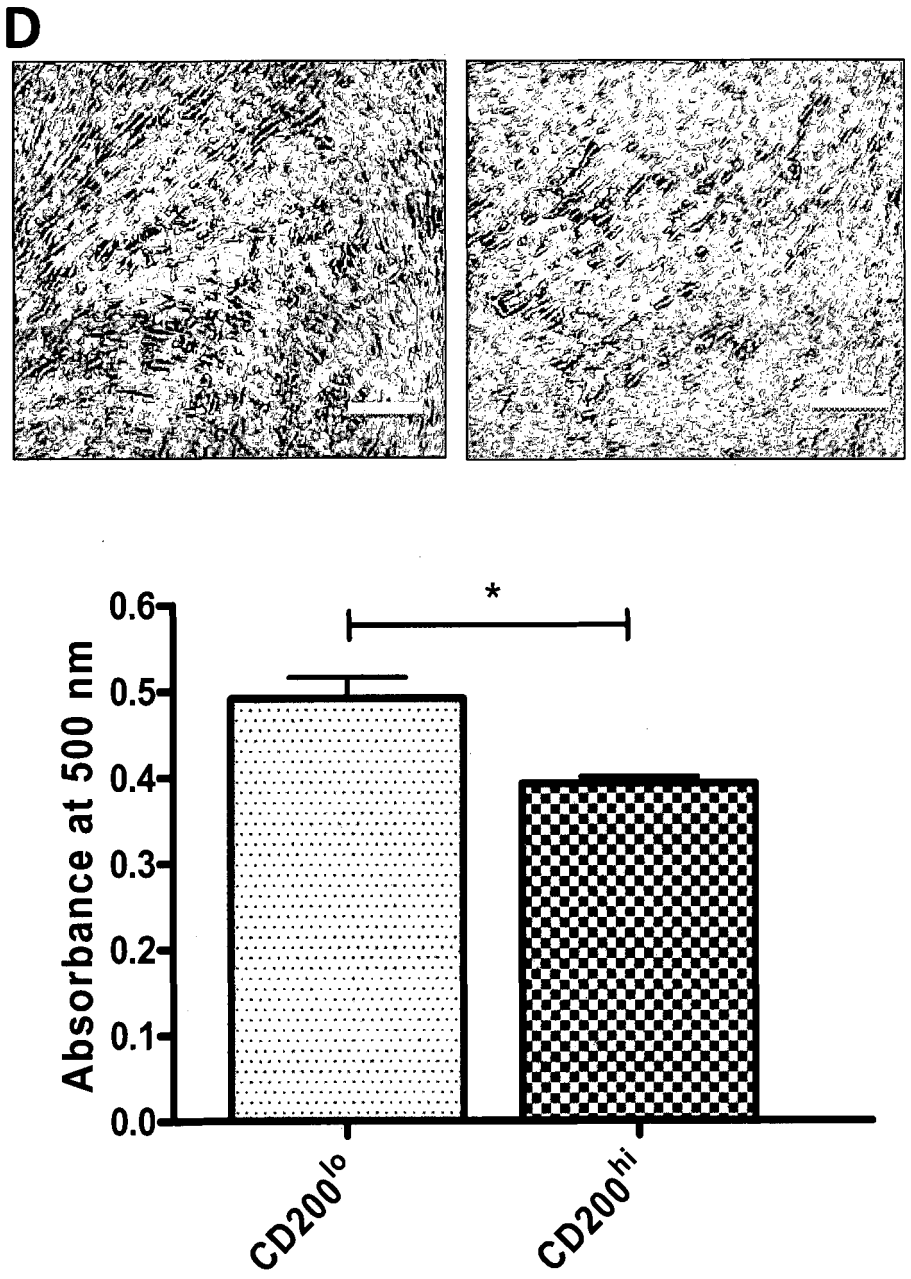


FIGURE 5

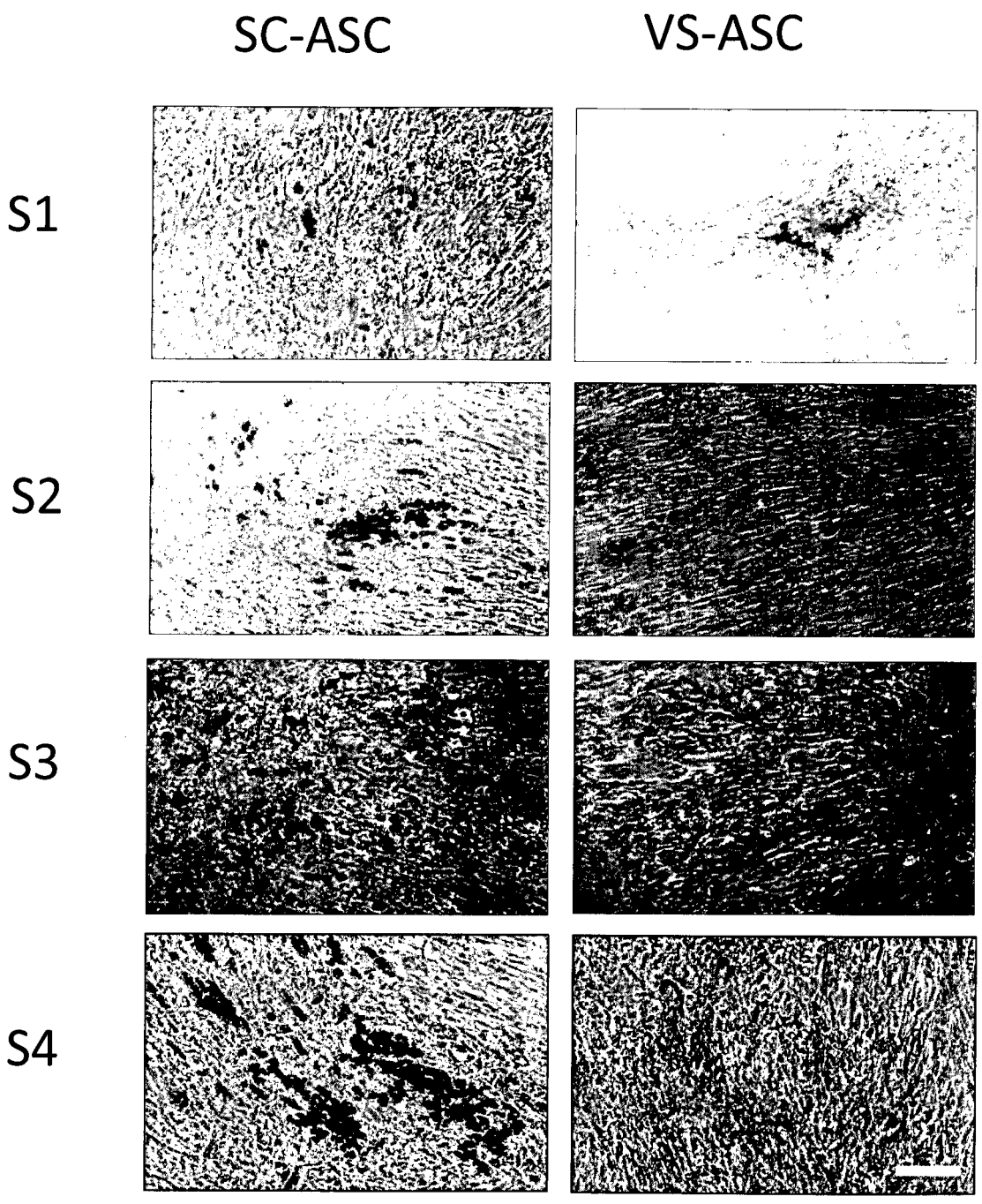


FIGURE 6

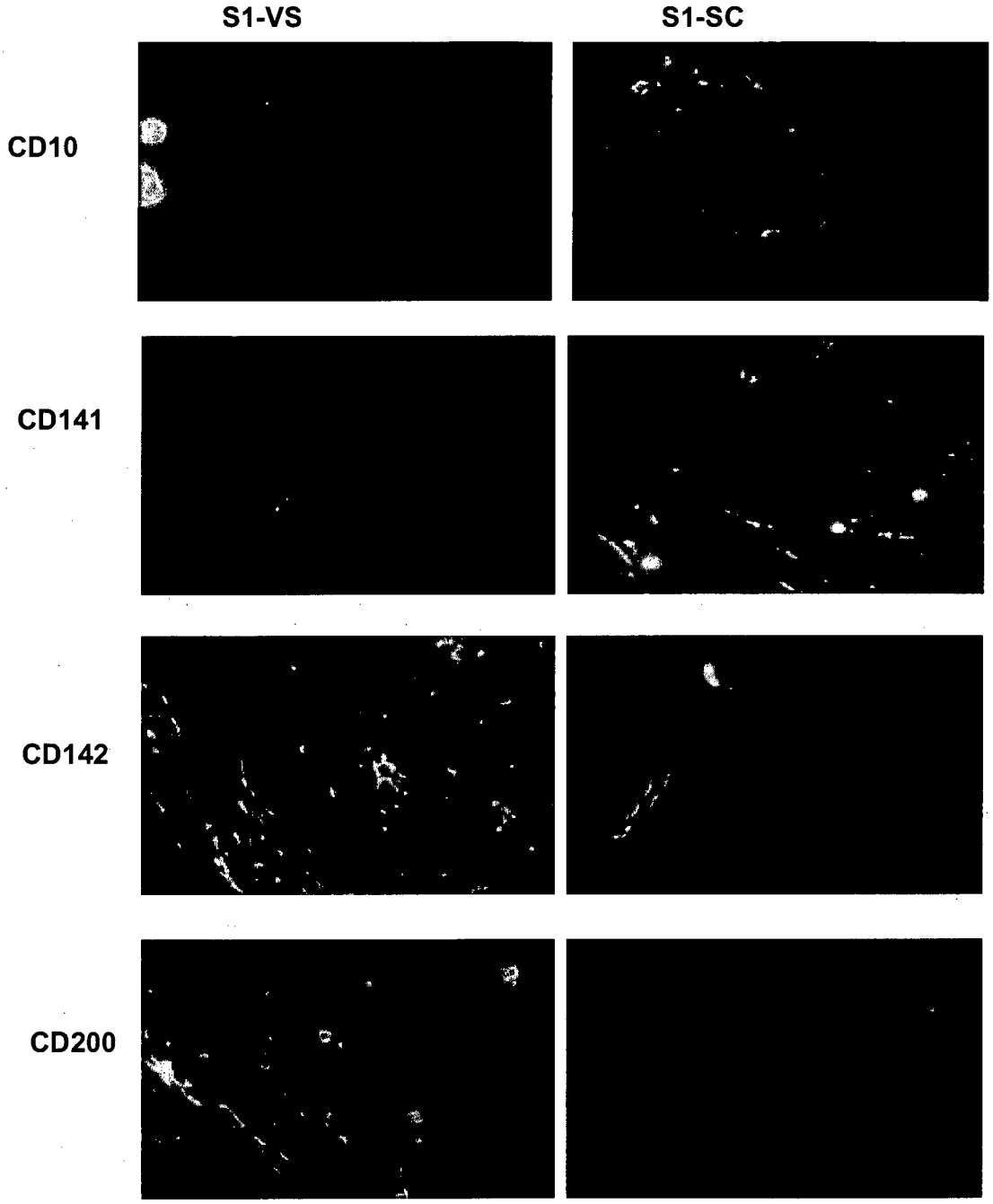


FIGURE 6 continued

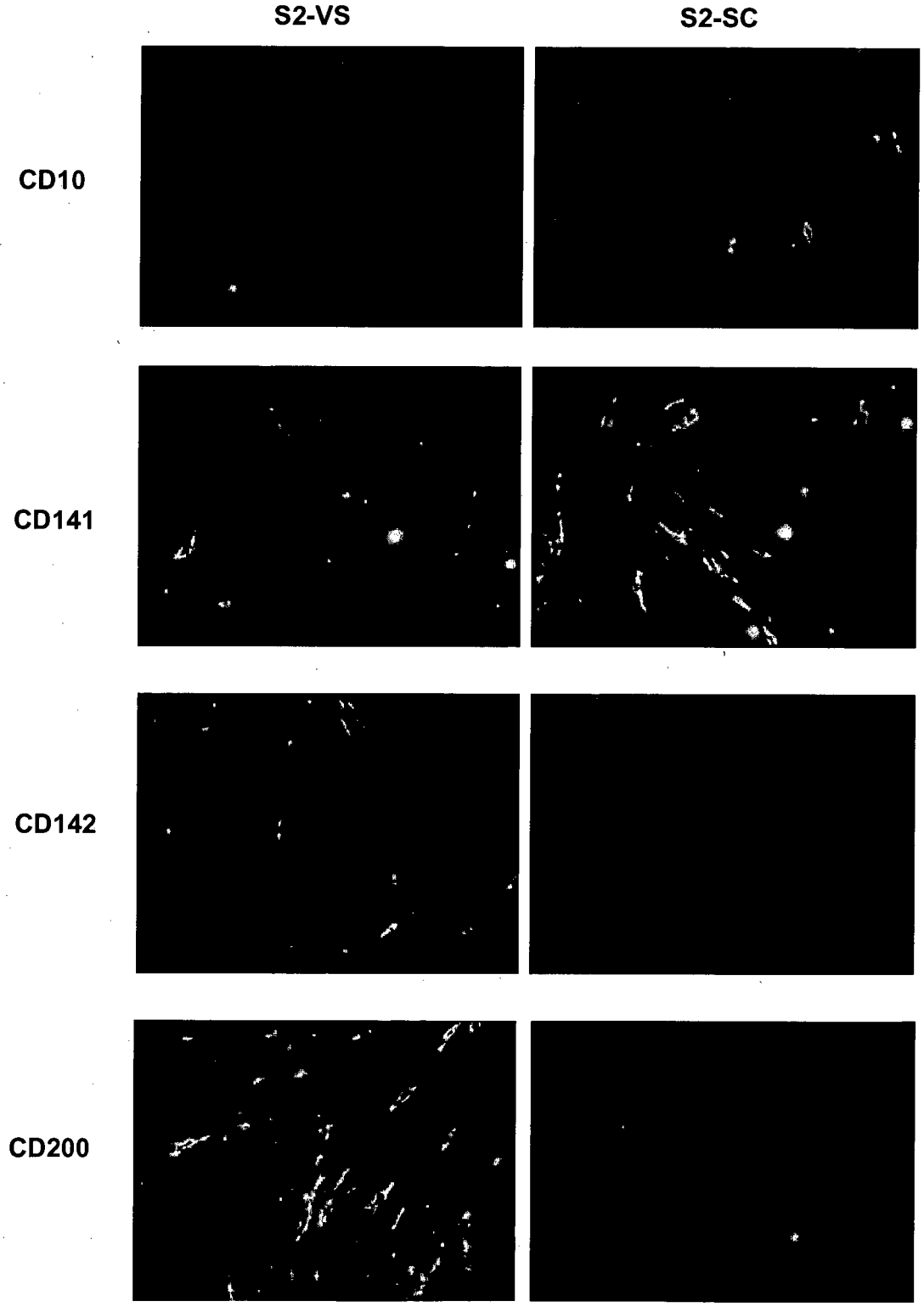


FIGURE 6 continued

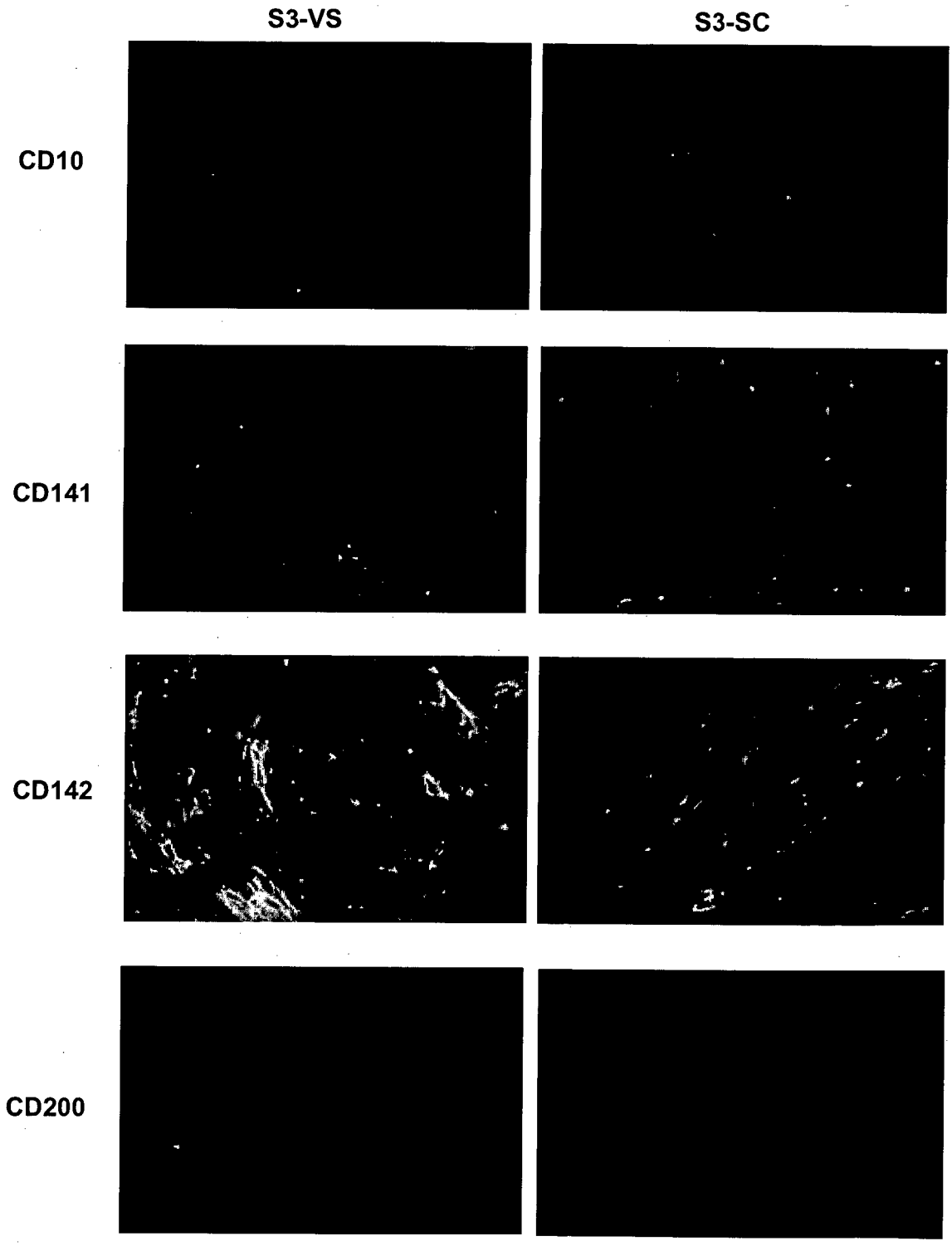


FIGURE 6 continued

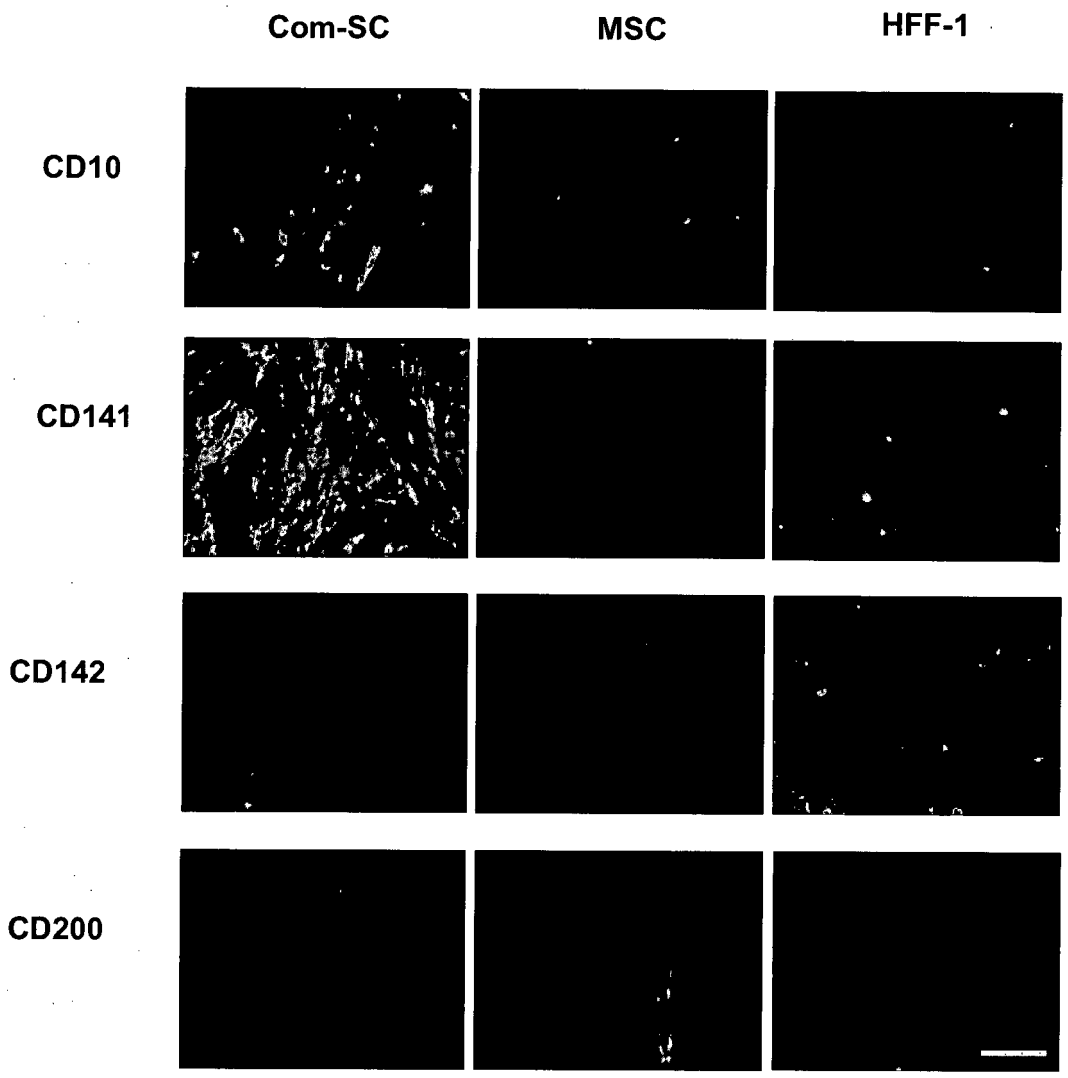


FIGURE 7

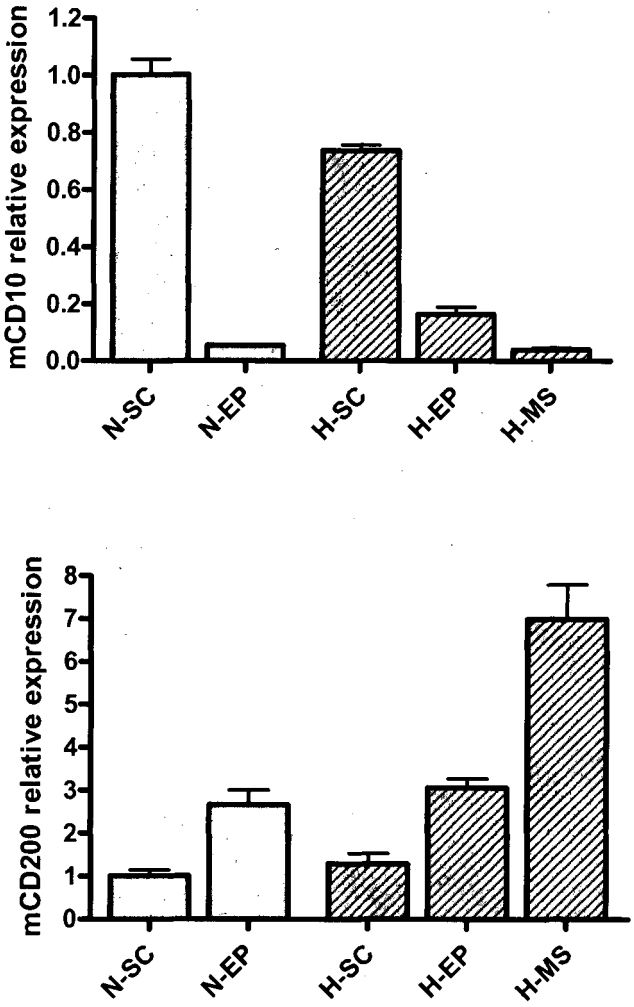


FIGURE 8

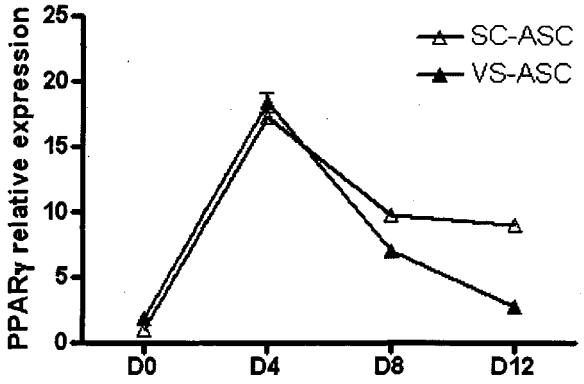


FIGURE 8 continued

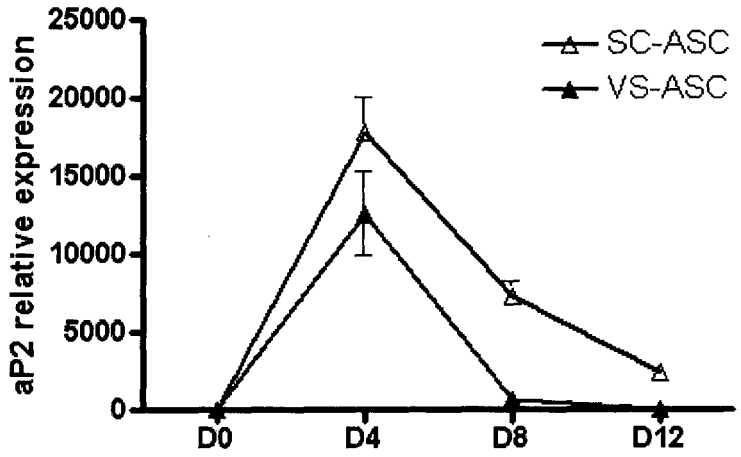


FIGURE 9

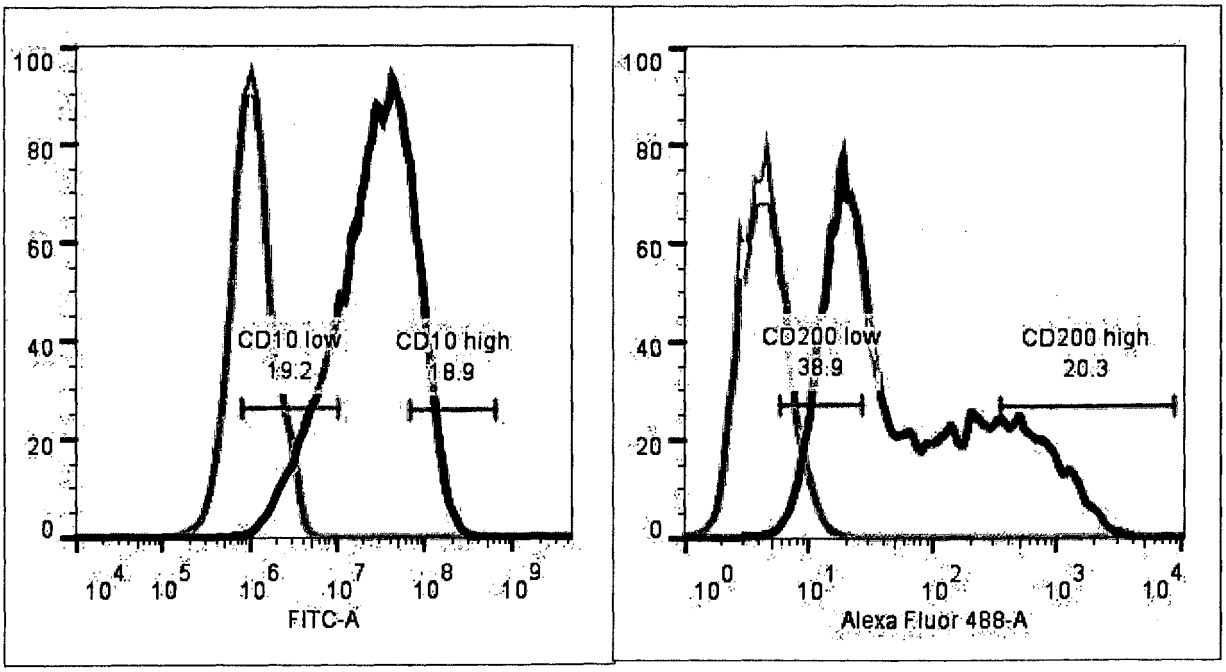
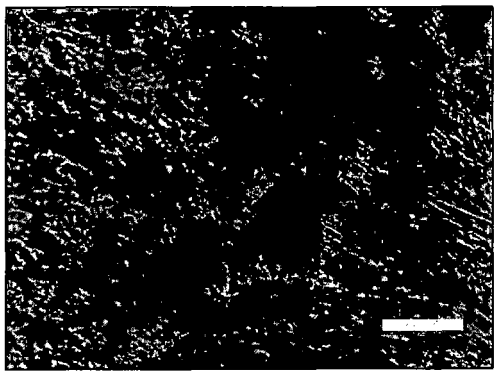
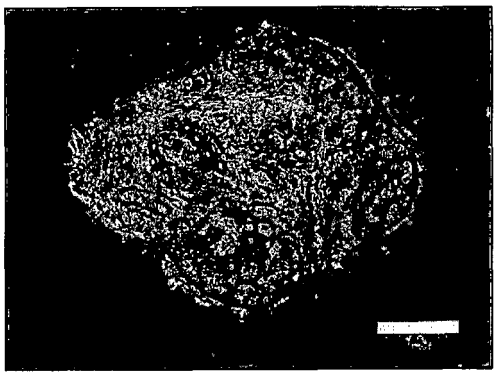


FIGURE 10

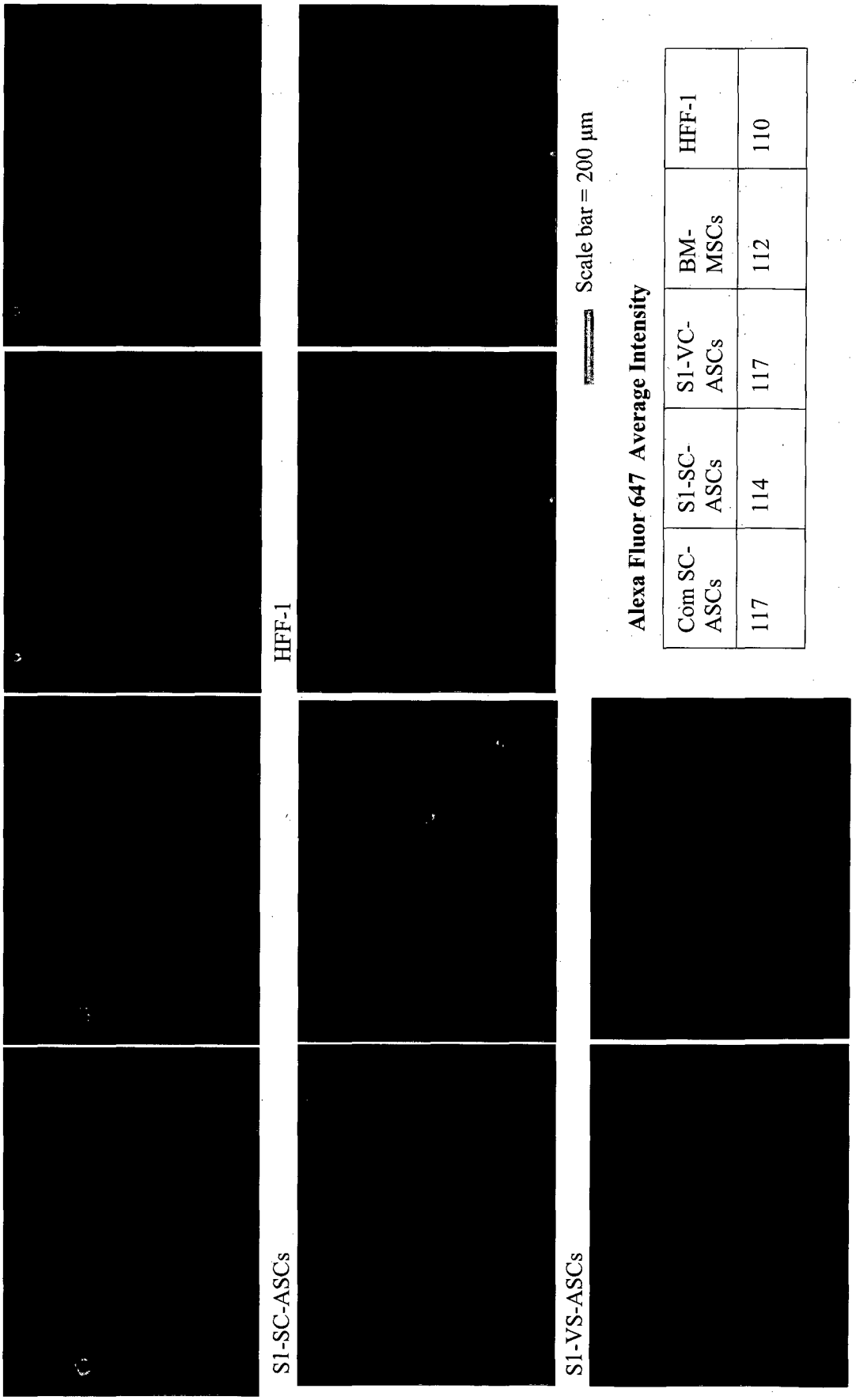


Osteogenesis



Chondrogenesis

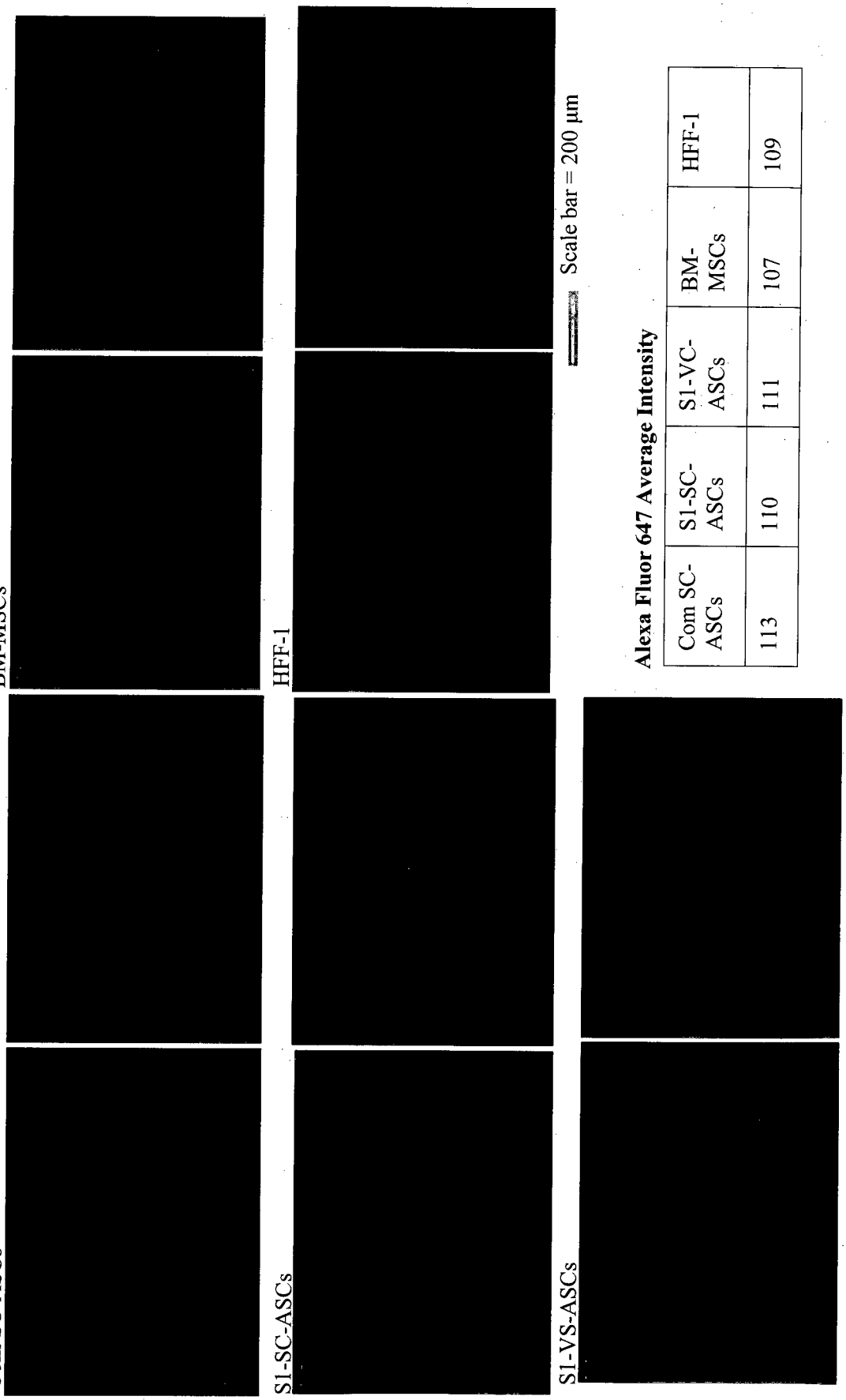
FIGURE 11



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
117	114	117	112	110

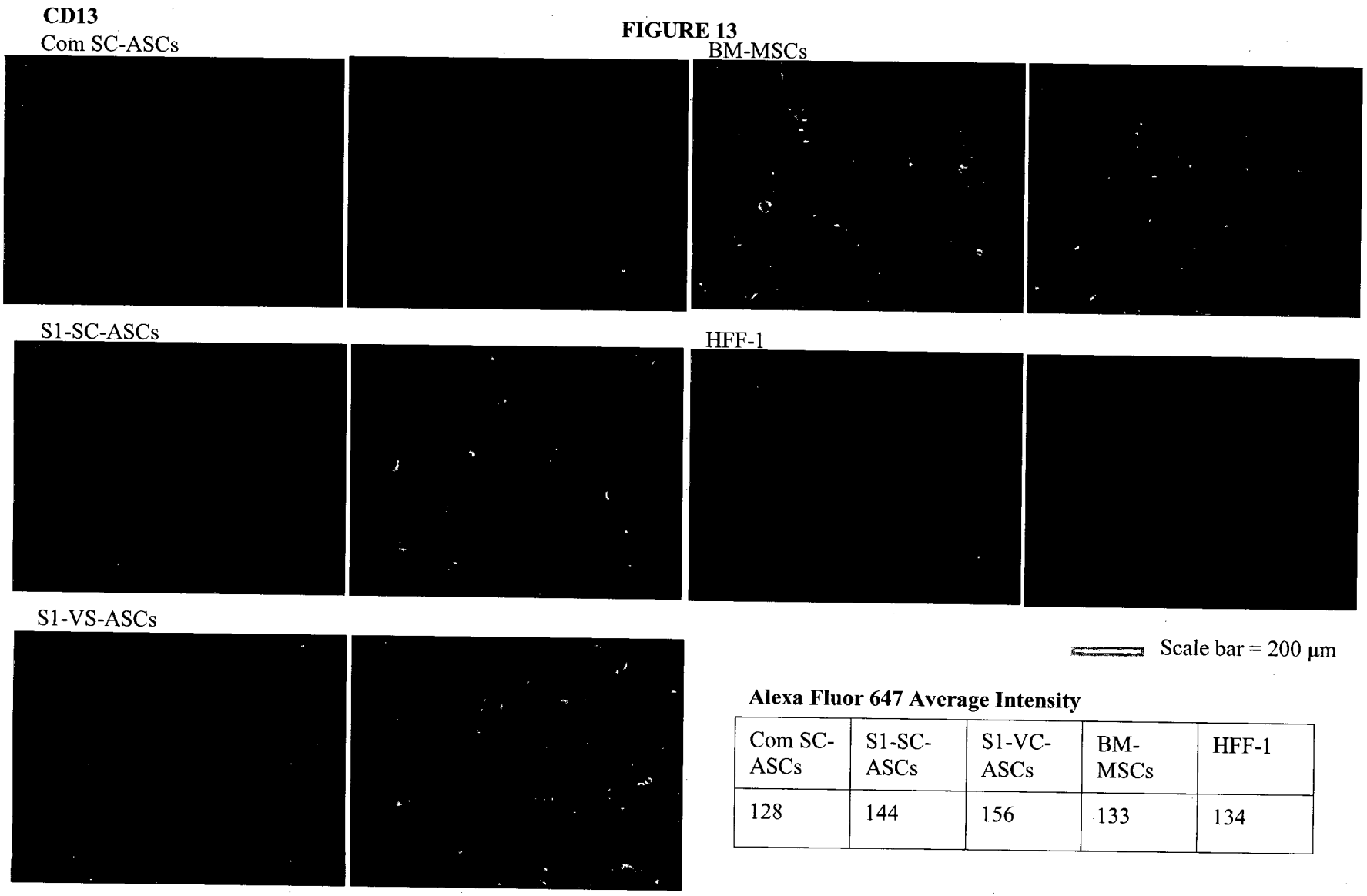
FIGURE 12



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
113	110	111	107	109

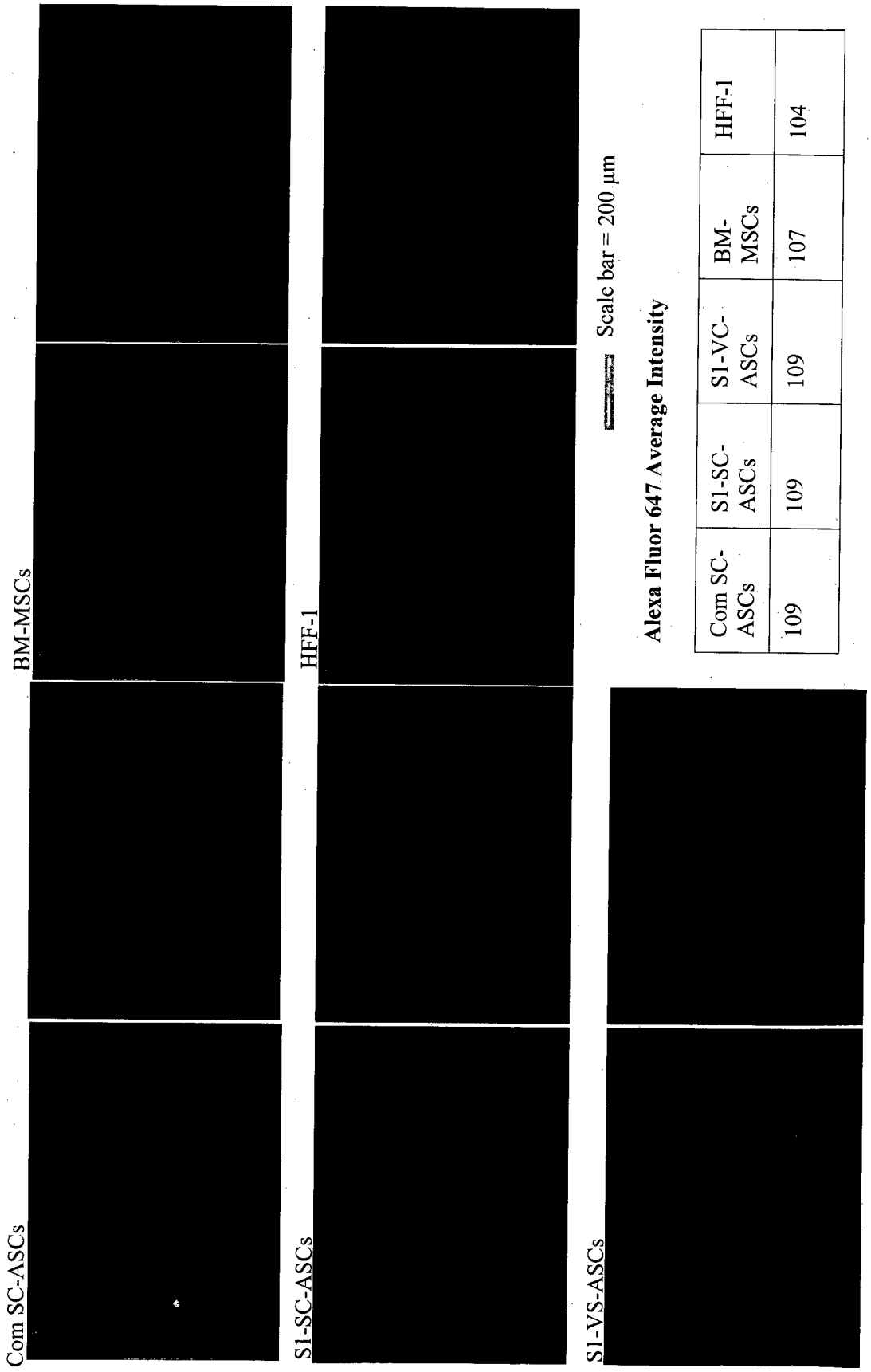
FIGURE 13



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
128	144	156	133	134

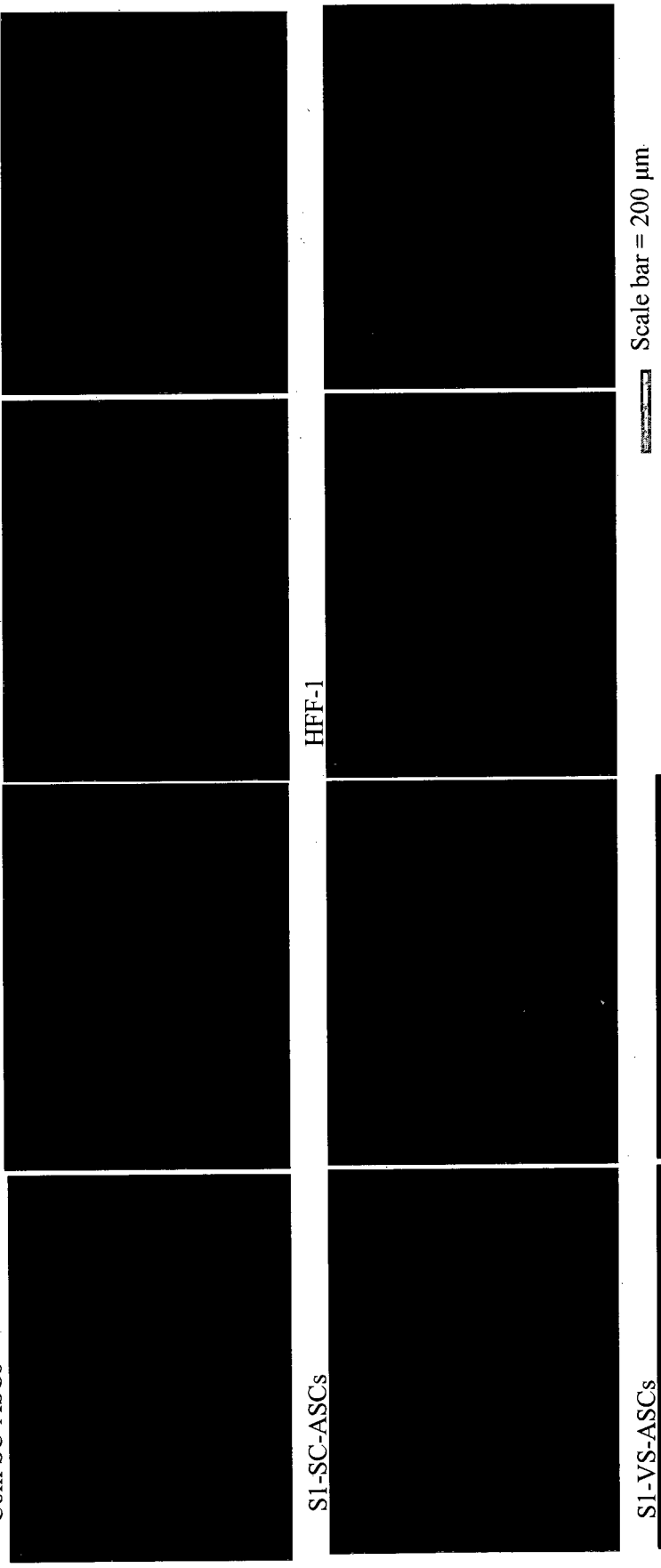
FIGURE 14



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
109	109	109	107	104

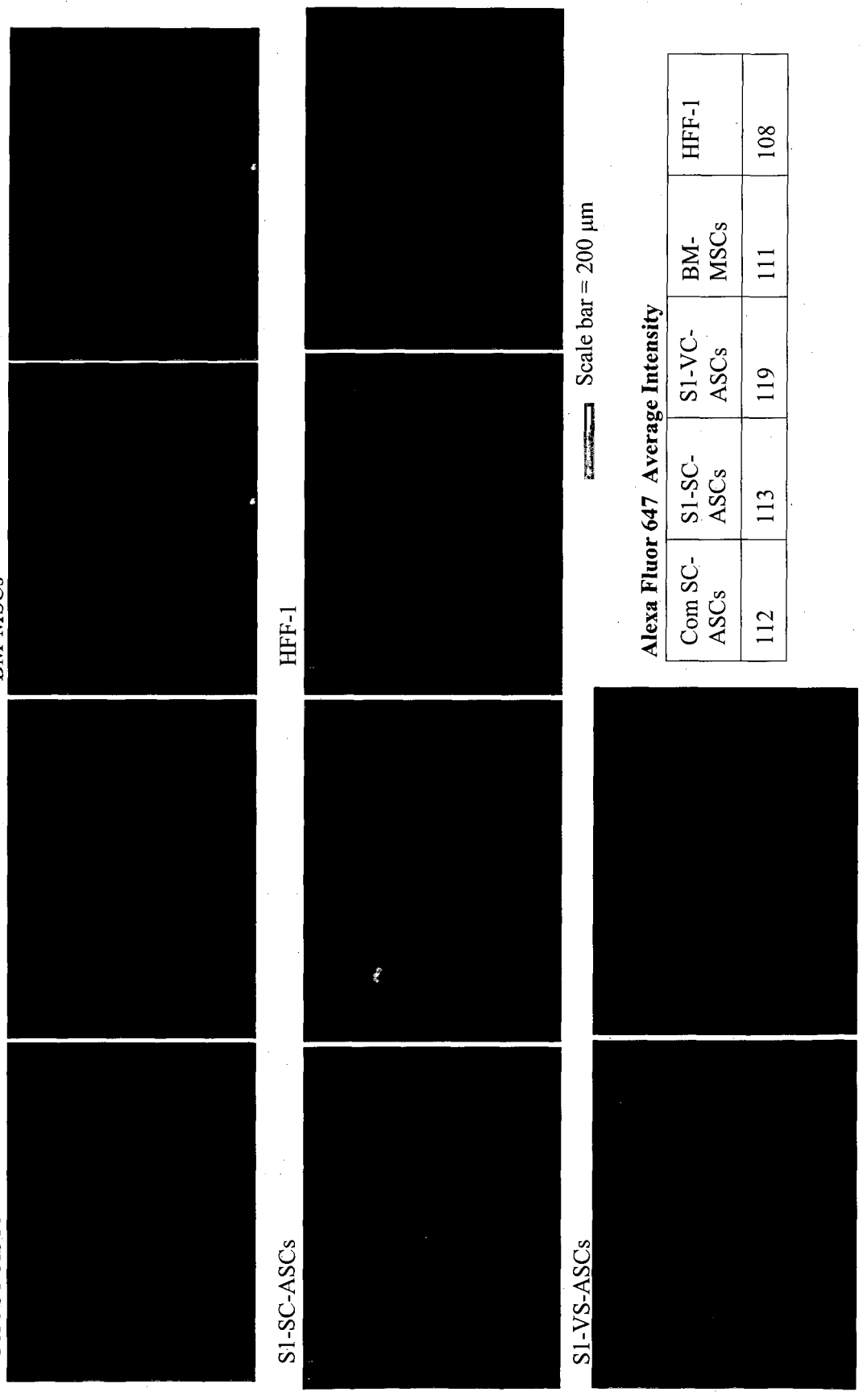
FIGURE 15



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
112	112	113	105	107

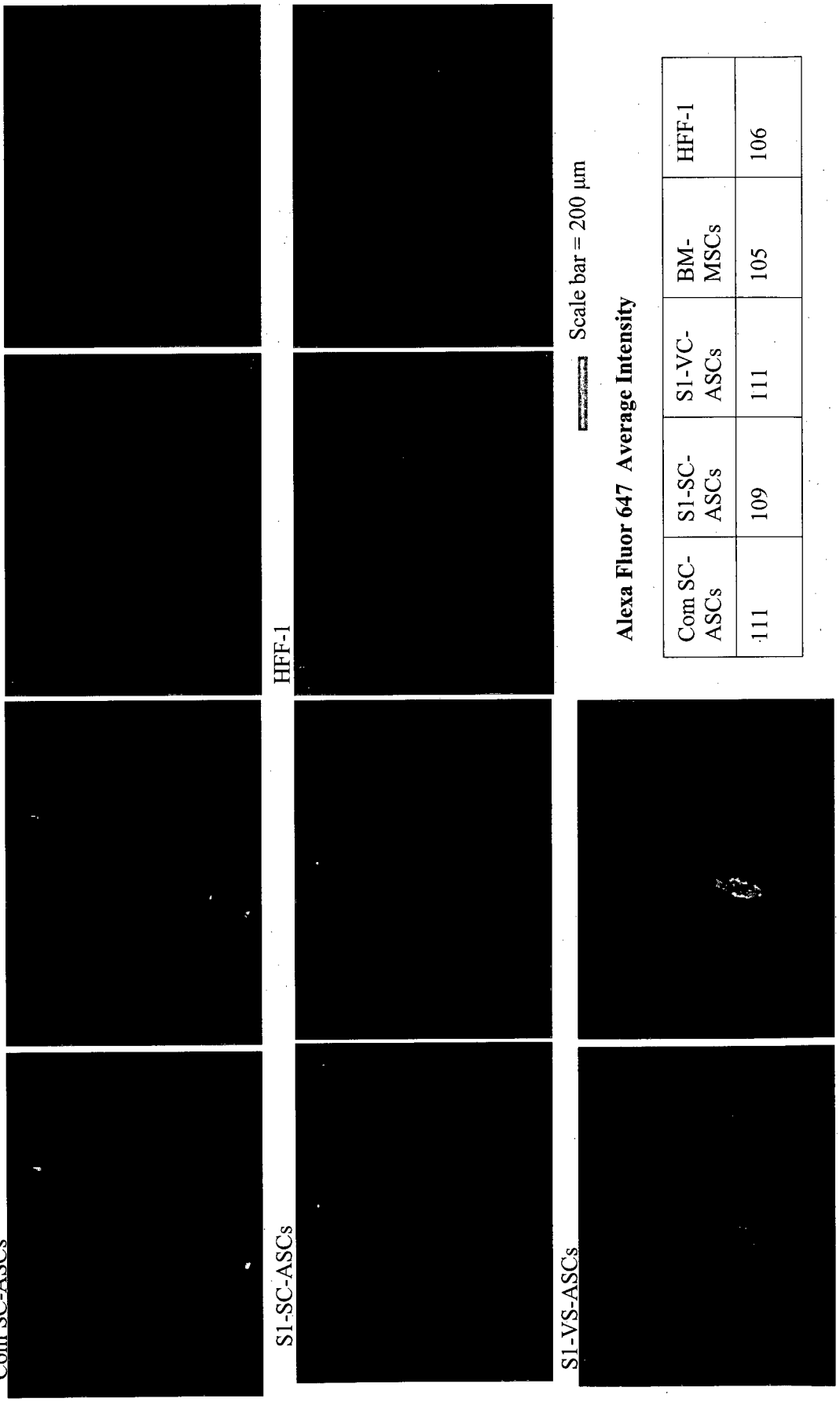
FIGURE 16



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
112	113	119	111	108

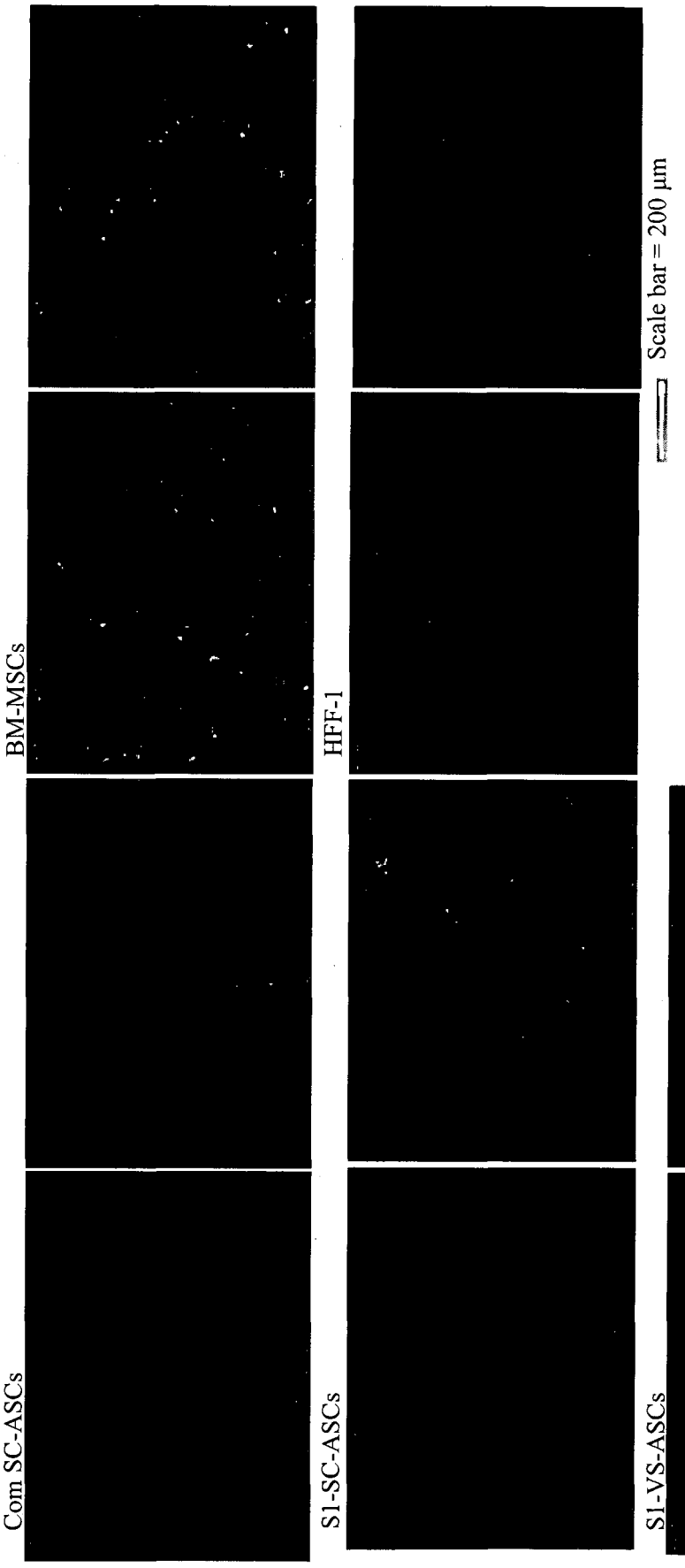
FIGURE 17



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
111	109	111	105	106

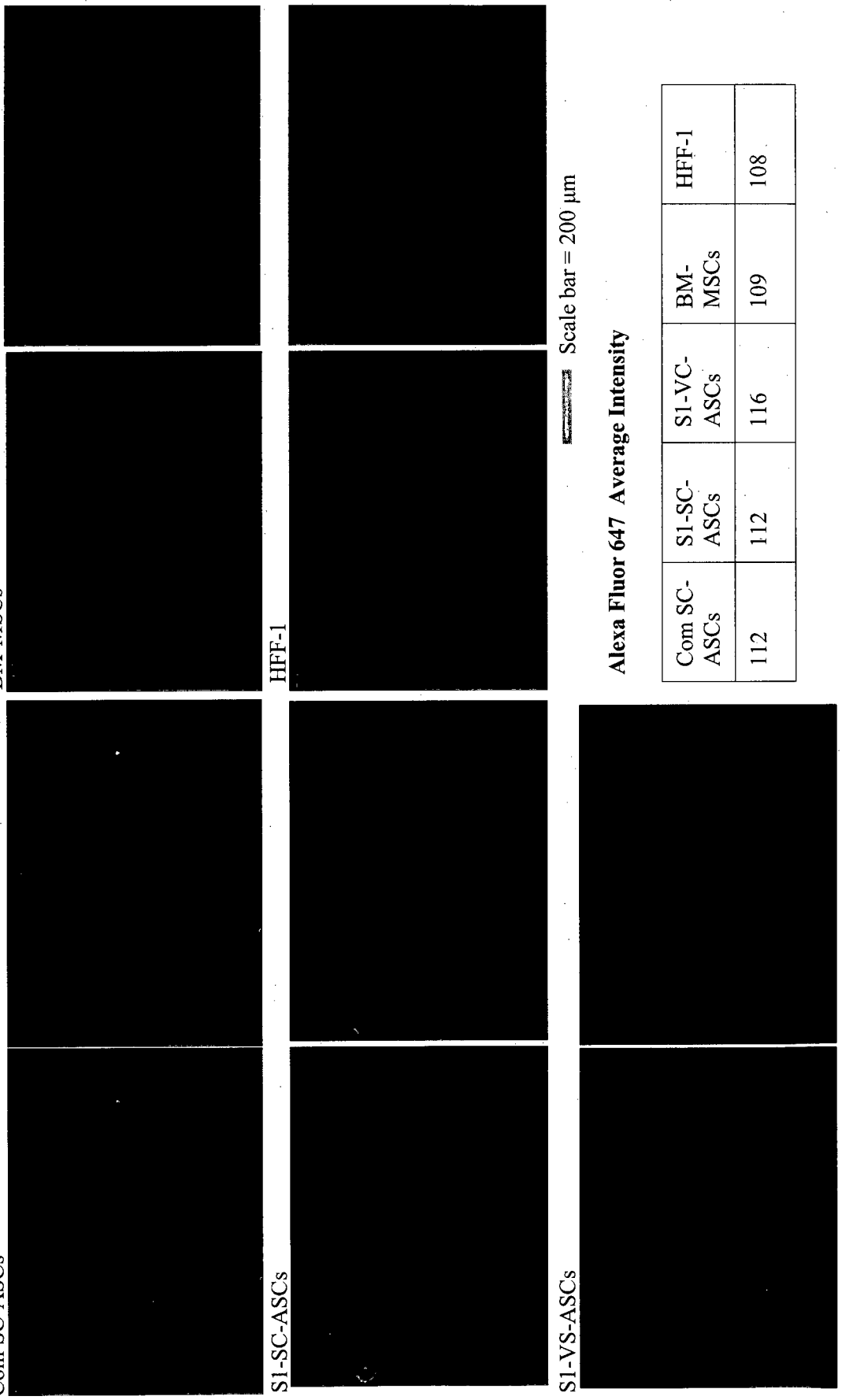
FIGURE 18



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
147	164	190	155	151

FIGURE 19

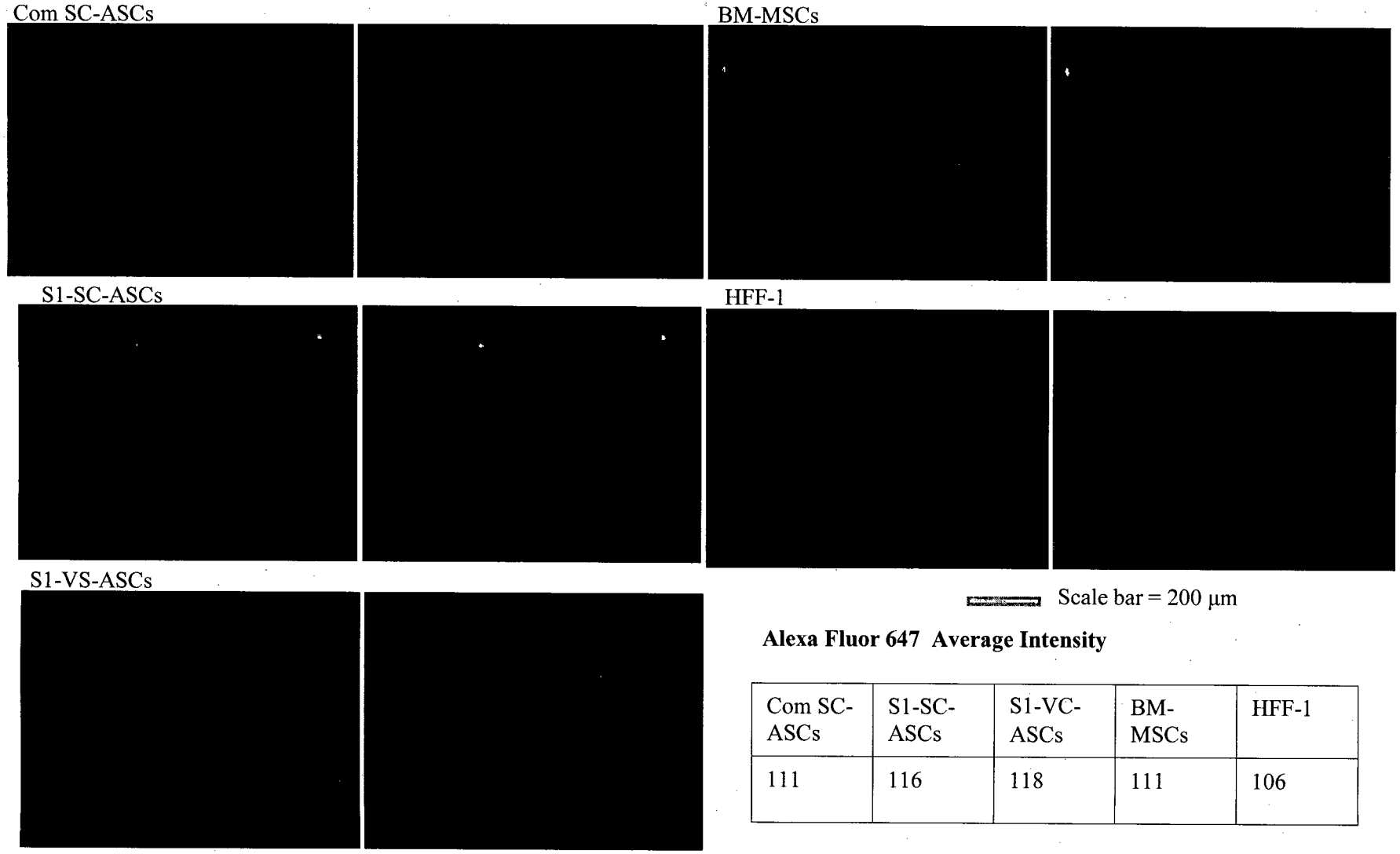


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
112	112	116	109	108

FIGURE 20

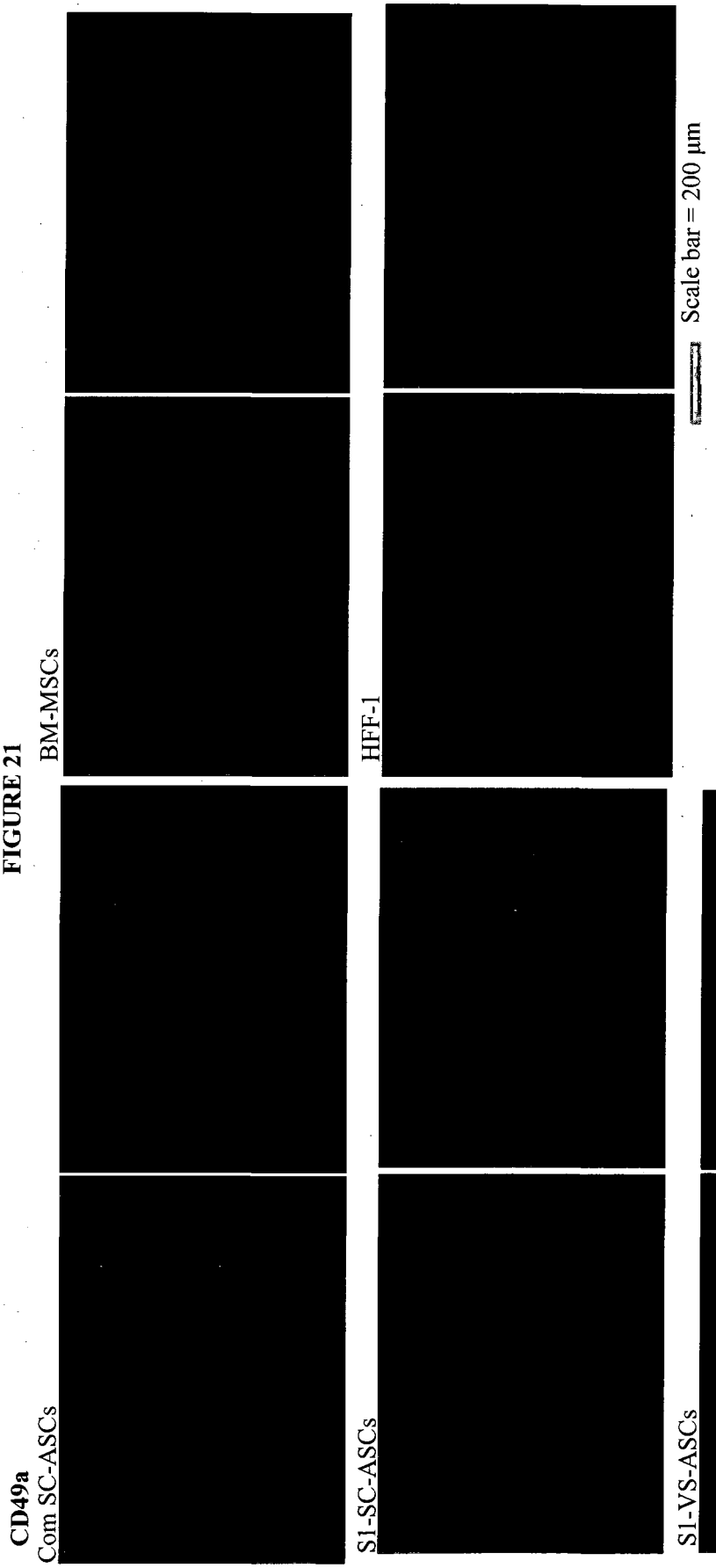
CD47



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
111	116	118	111	106

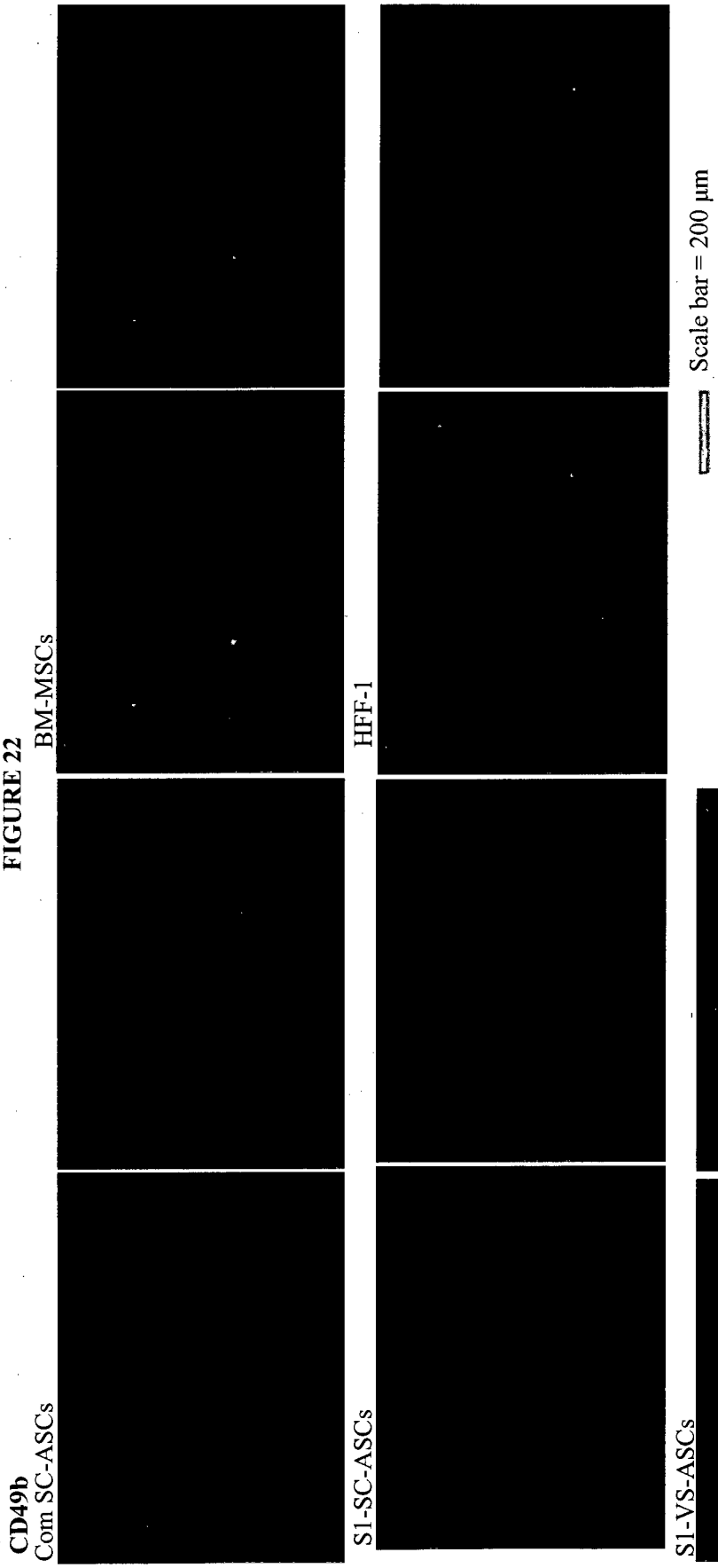
FIGURE 21



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
109	111	113	107	106

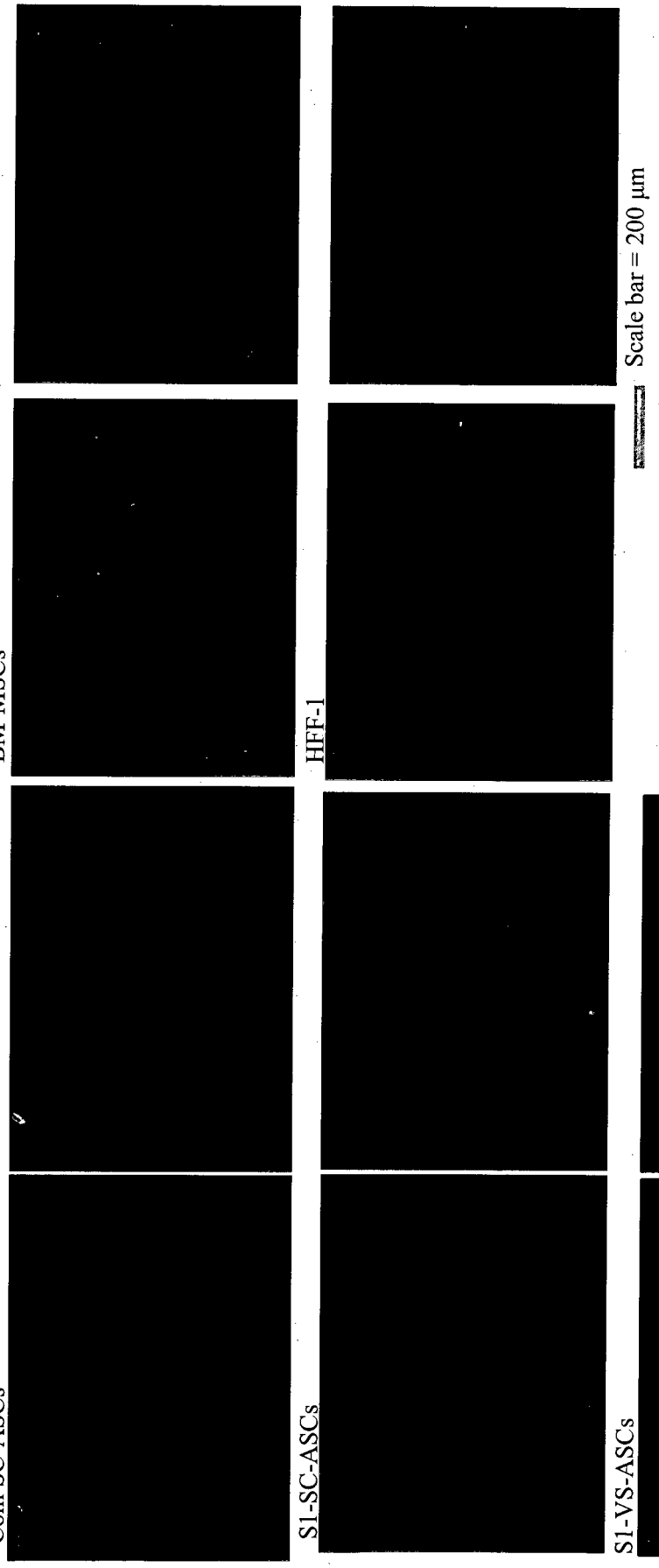
FIGURE 22



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
121	120	157	120	124

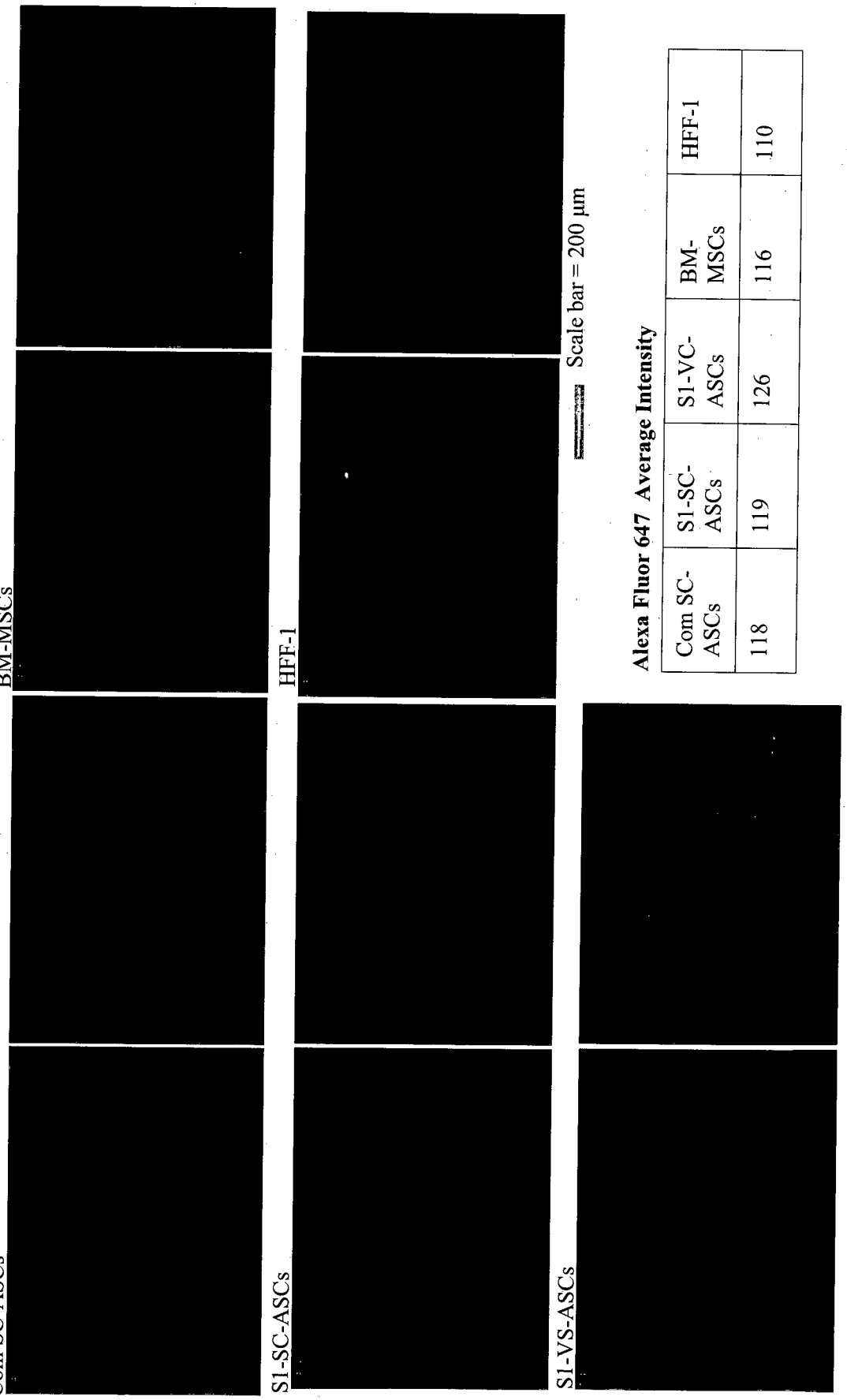
FIGURE 23



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
115	112	115	122	115

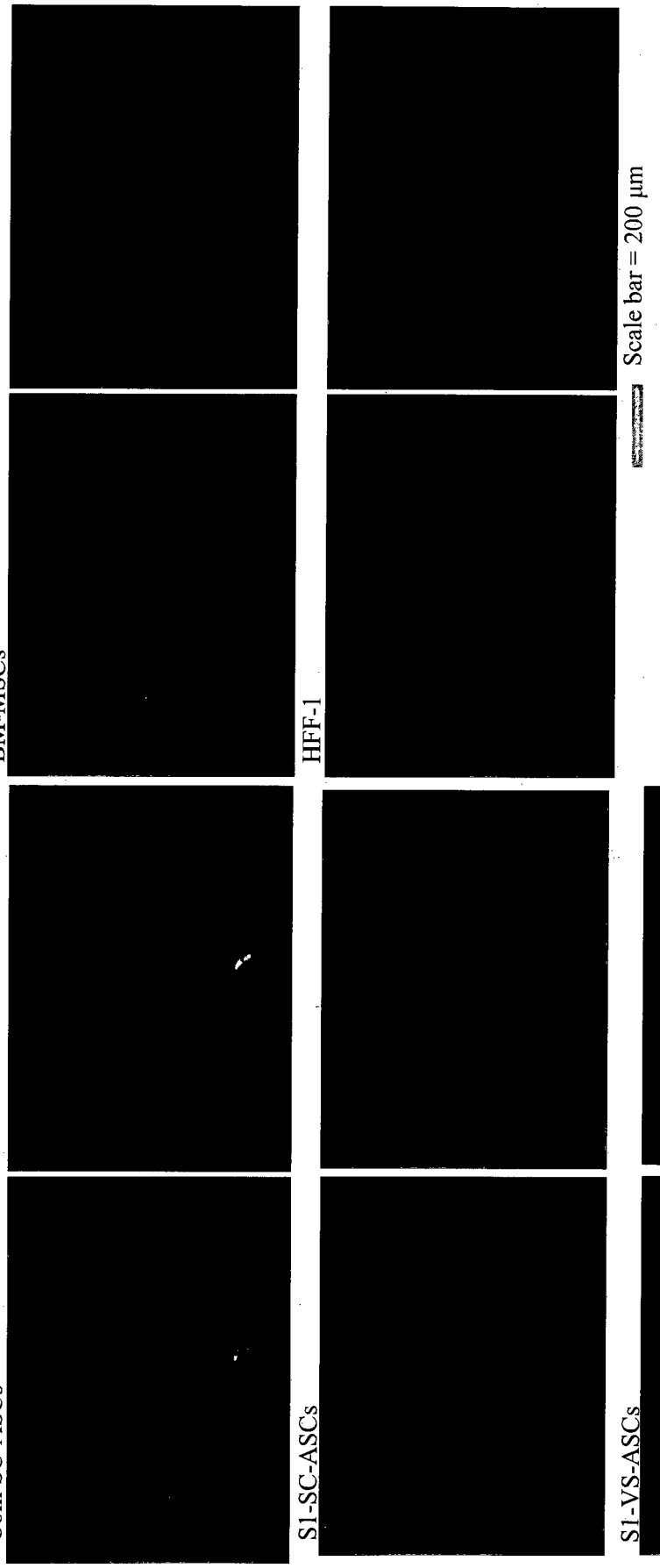
FIGURE 24



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
118	119	126	116	110

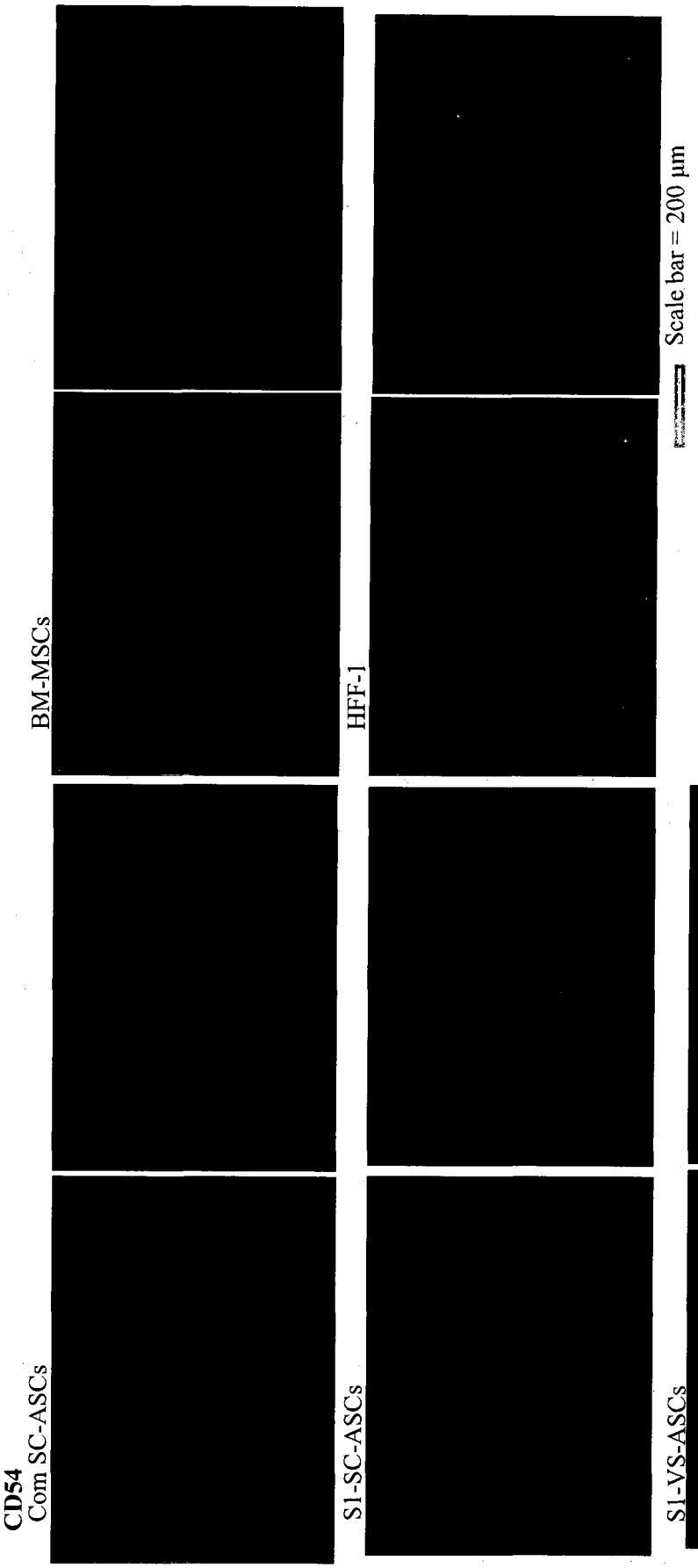
FIGURE 25



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
115	113	120	109	107

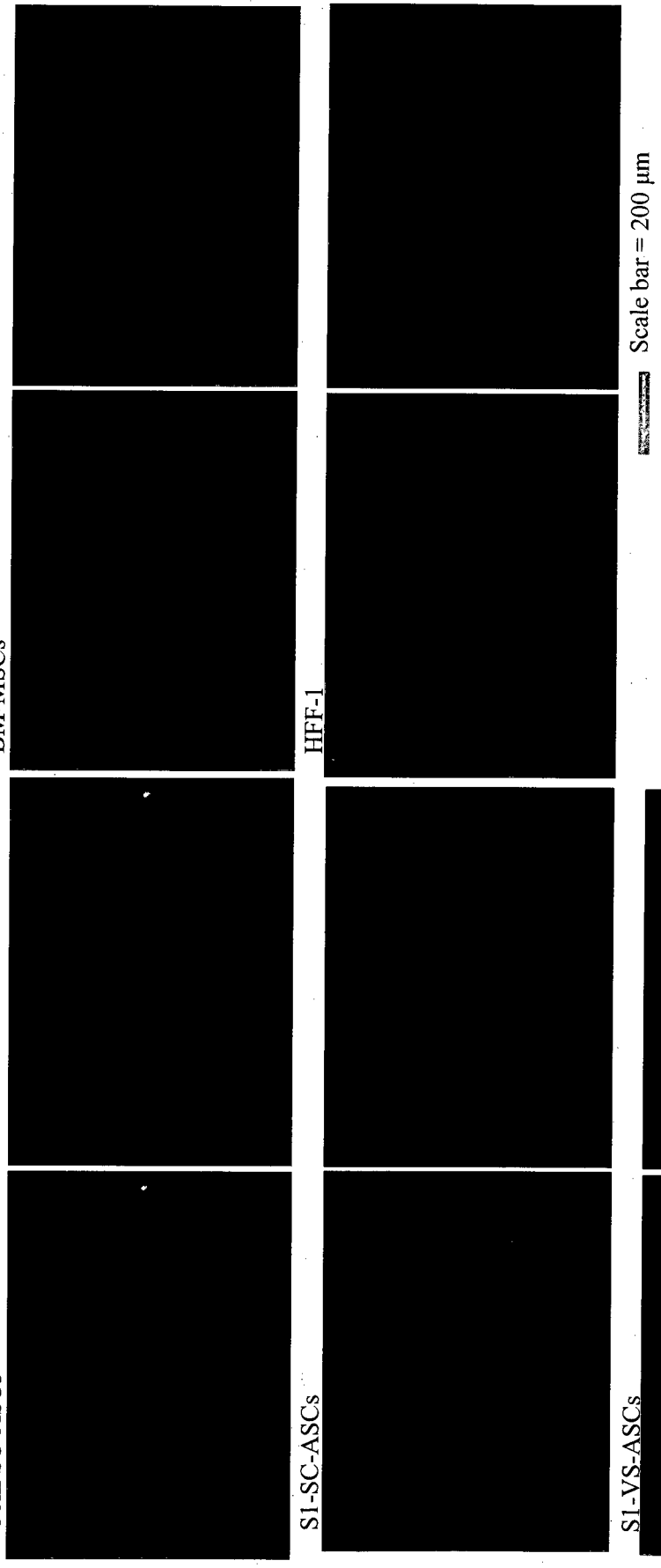
FIGURE 26



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
110	110	112	105	109

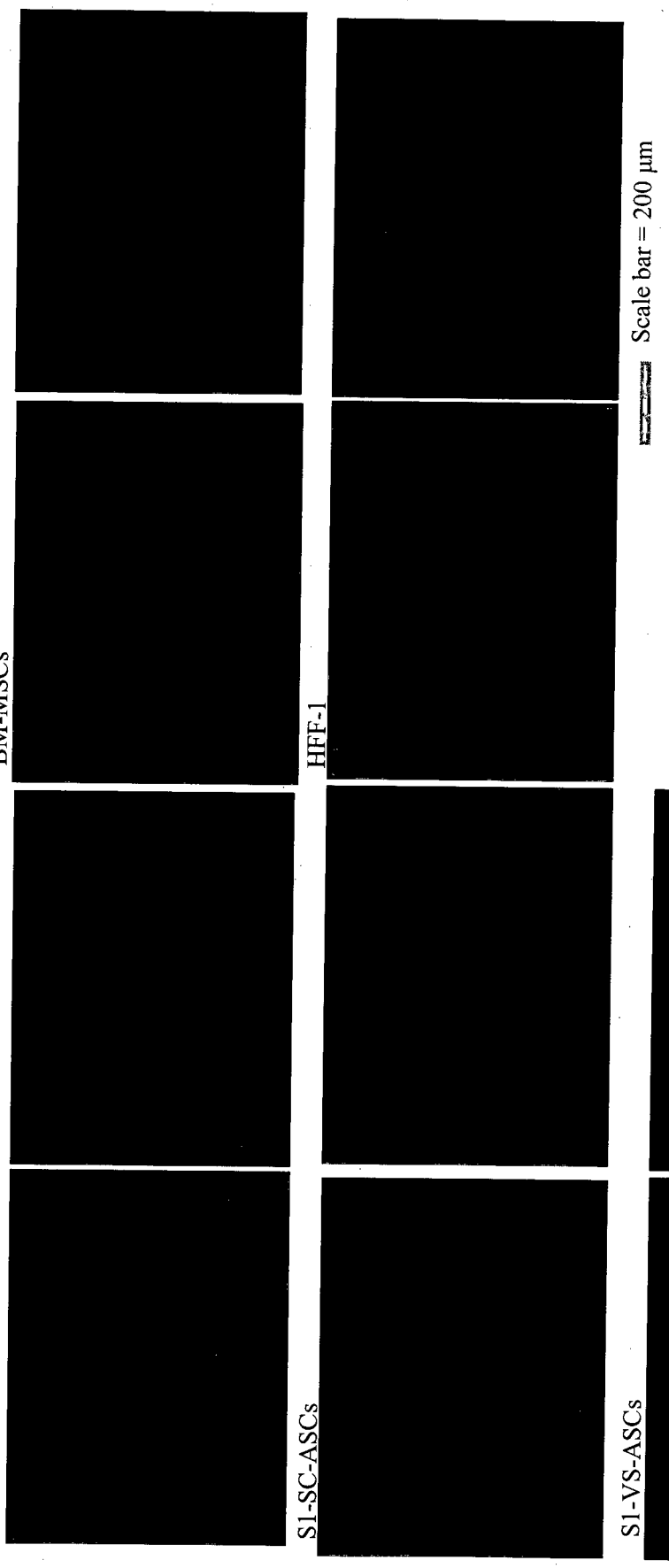
FIGURE 27



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
111	113	116	107	107

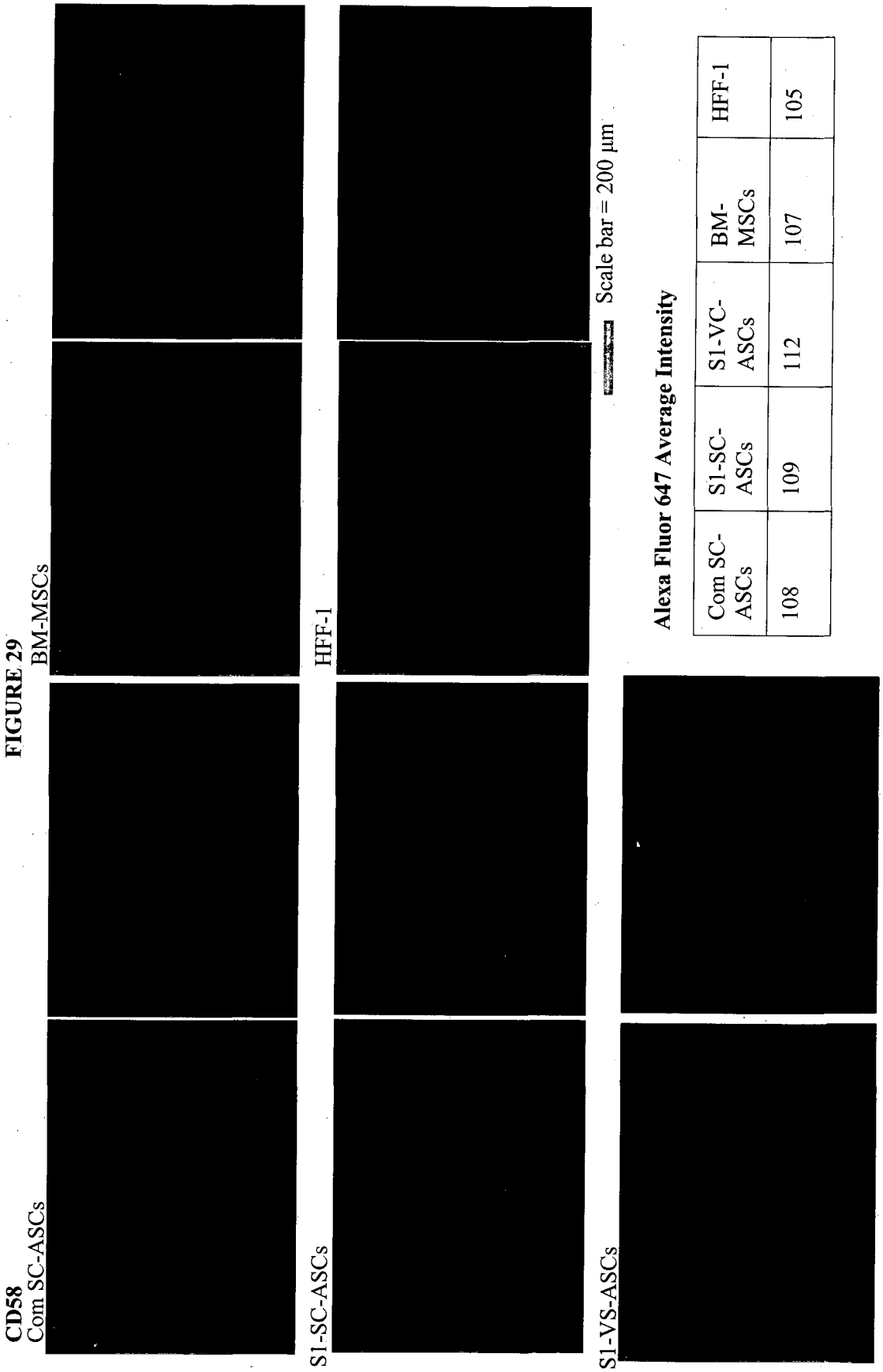
FIGURE 28



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
109	109	111	107	104

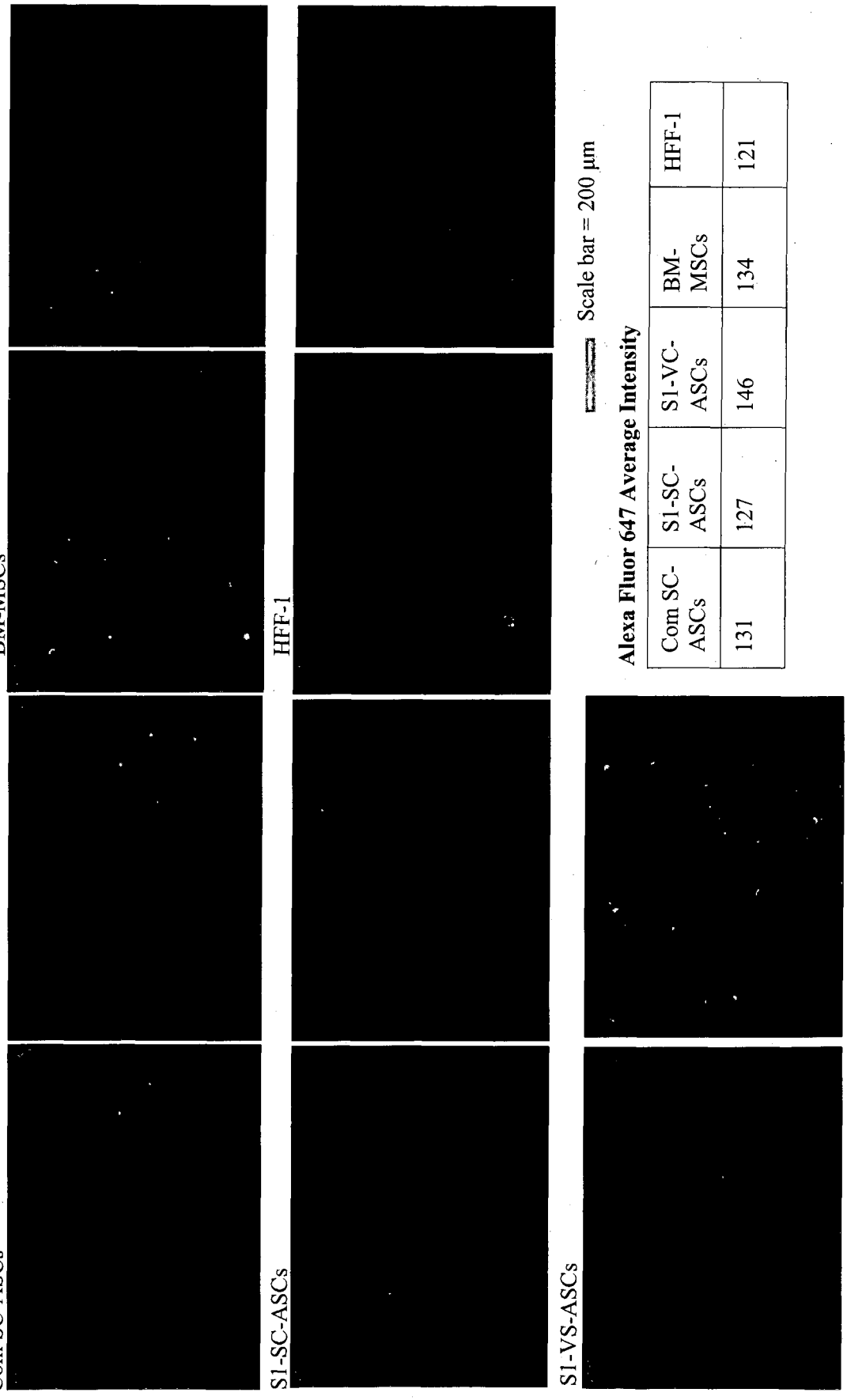
FIGURE 29



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
108	109	112	107	105

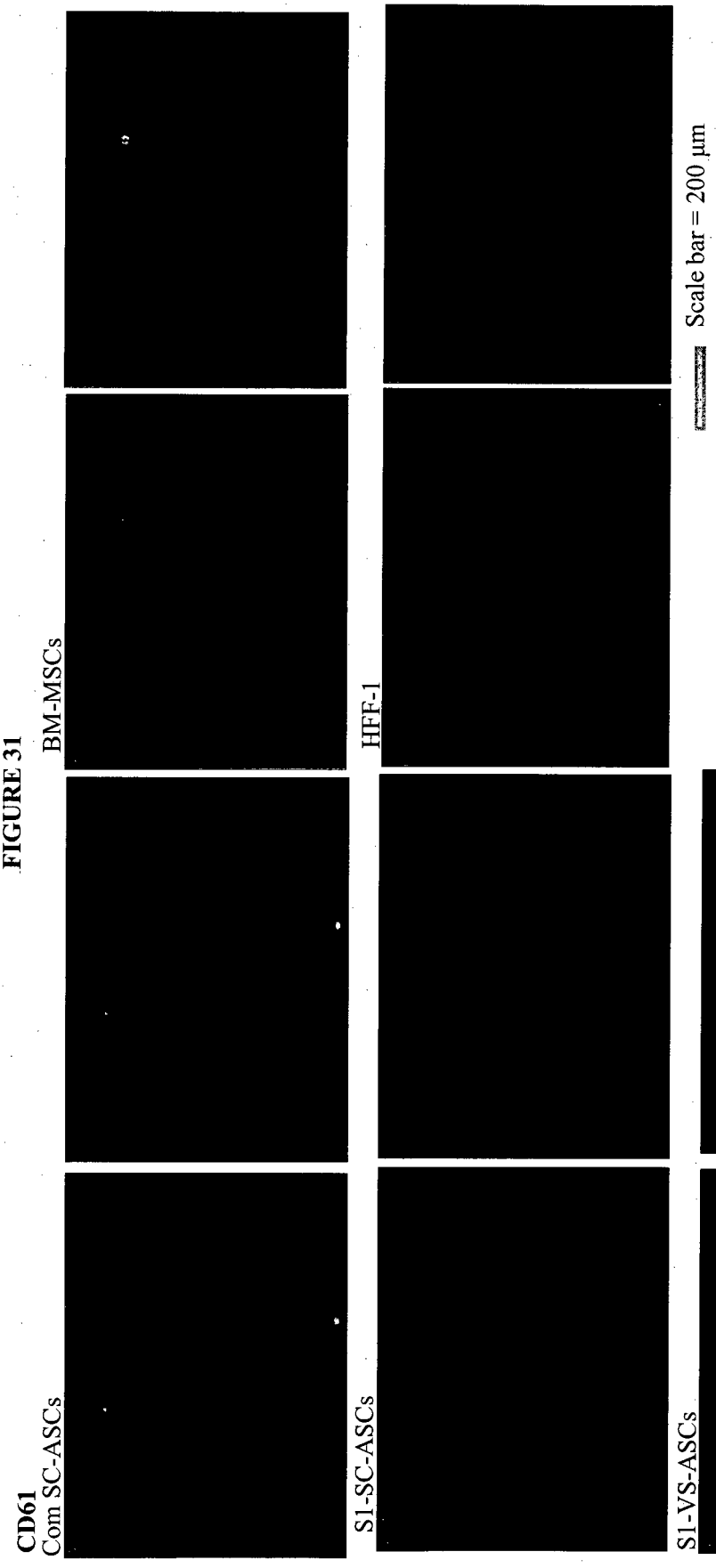
FIGURE 30



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
131	127	146	134	121

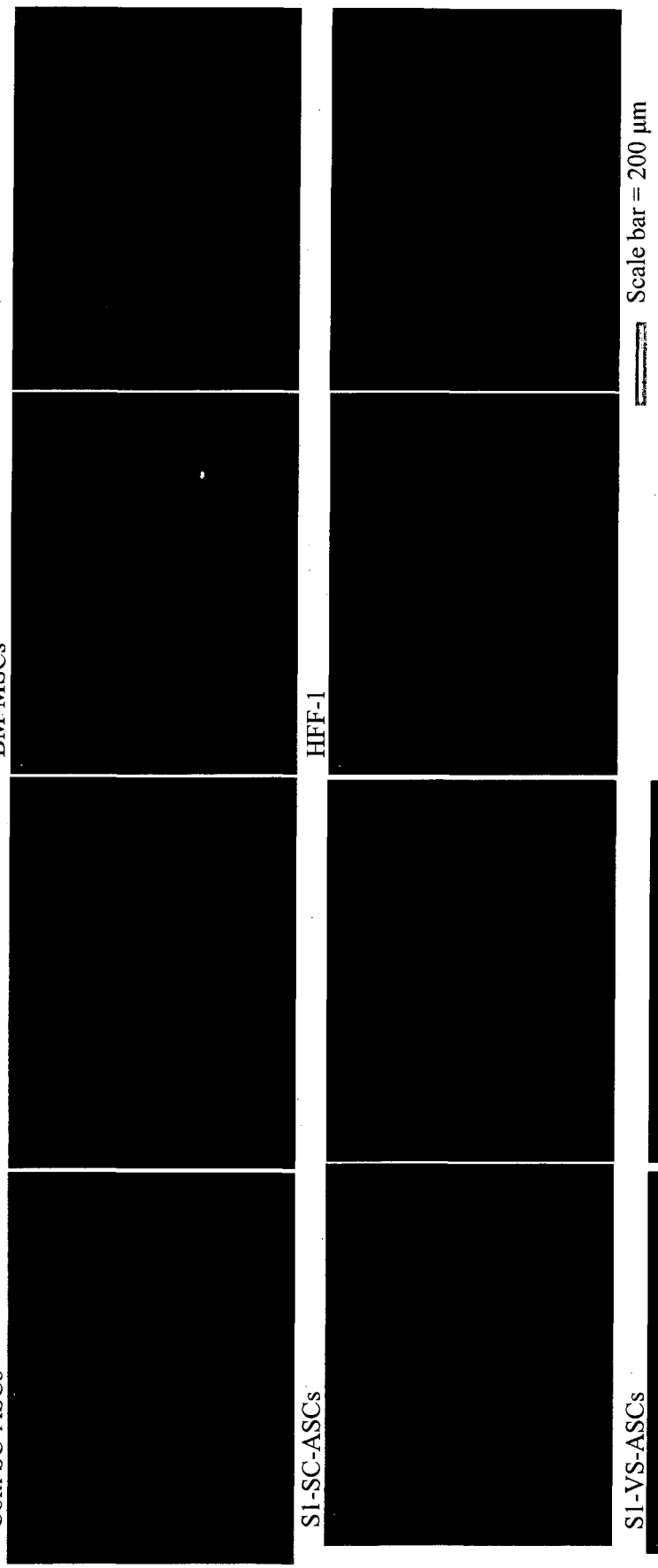
FIGURE 31



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
116	113	117	109	105

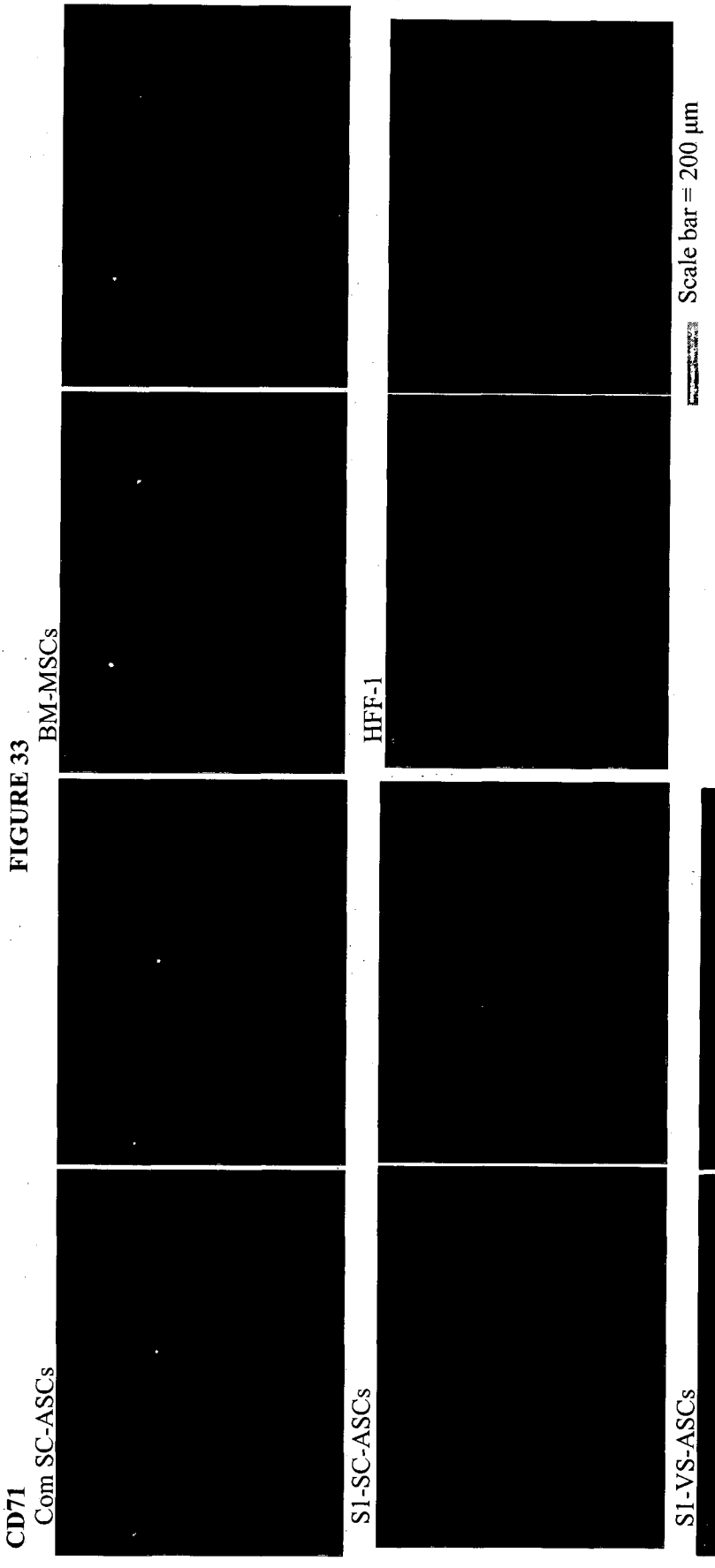
FIGURE 32



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
114	113	118	114	110

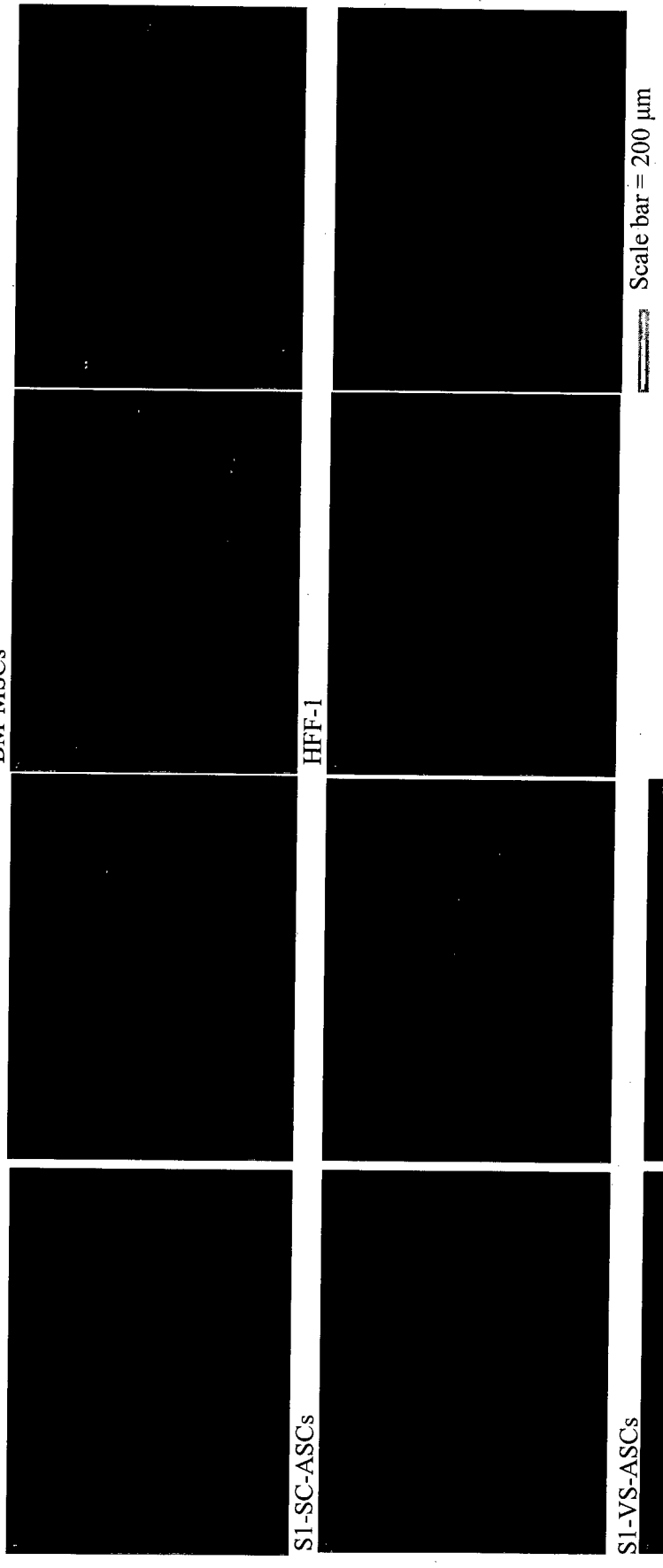
FIGURE 33



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
114	111	114	112	107

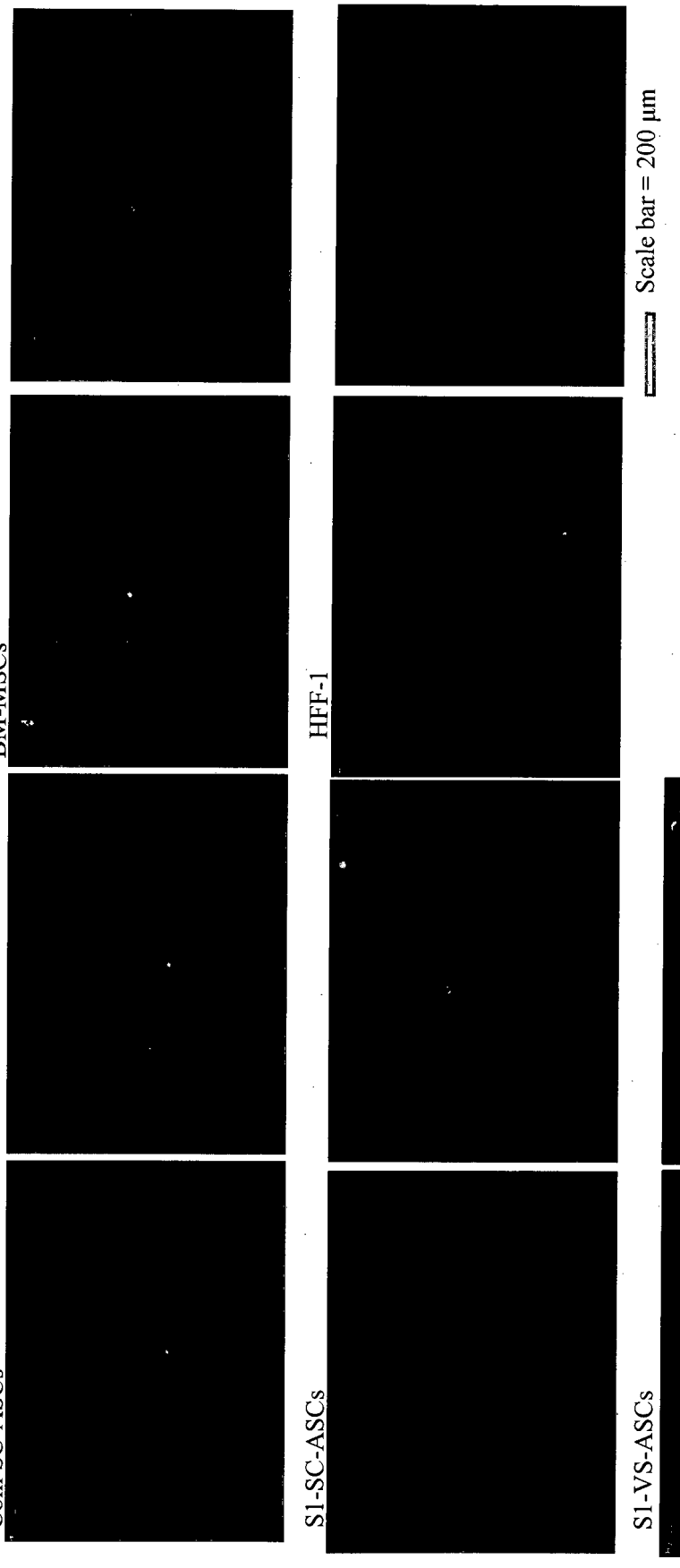
FIGURE 34



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
121	119	139	121	117

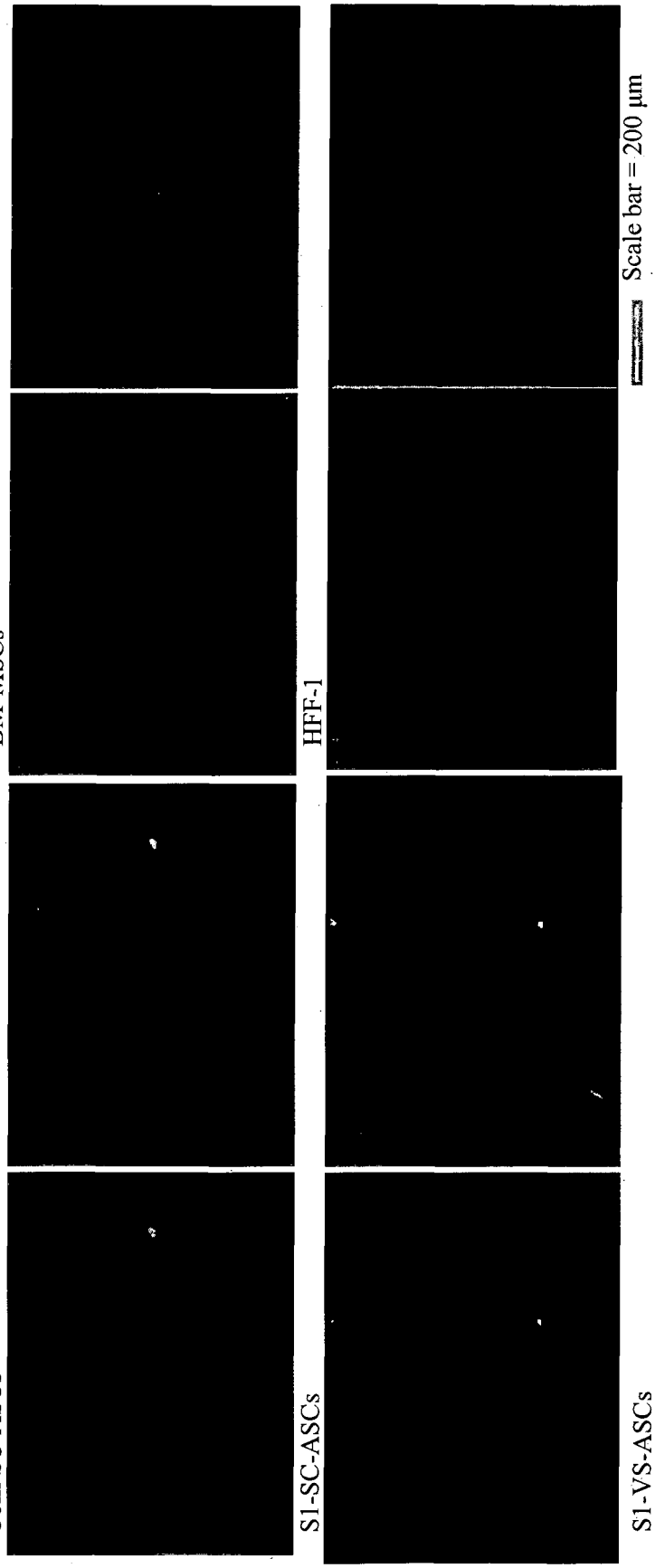
FIGURE 35



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
128	124	141	126	123

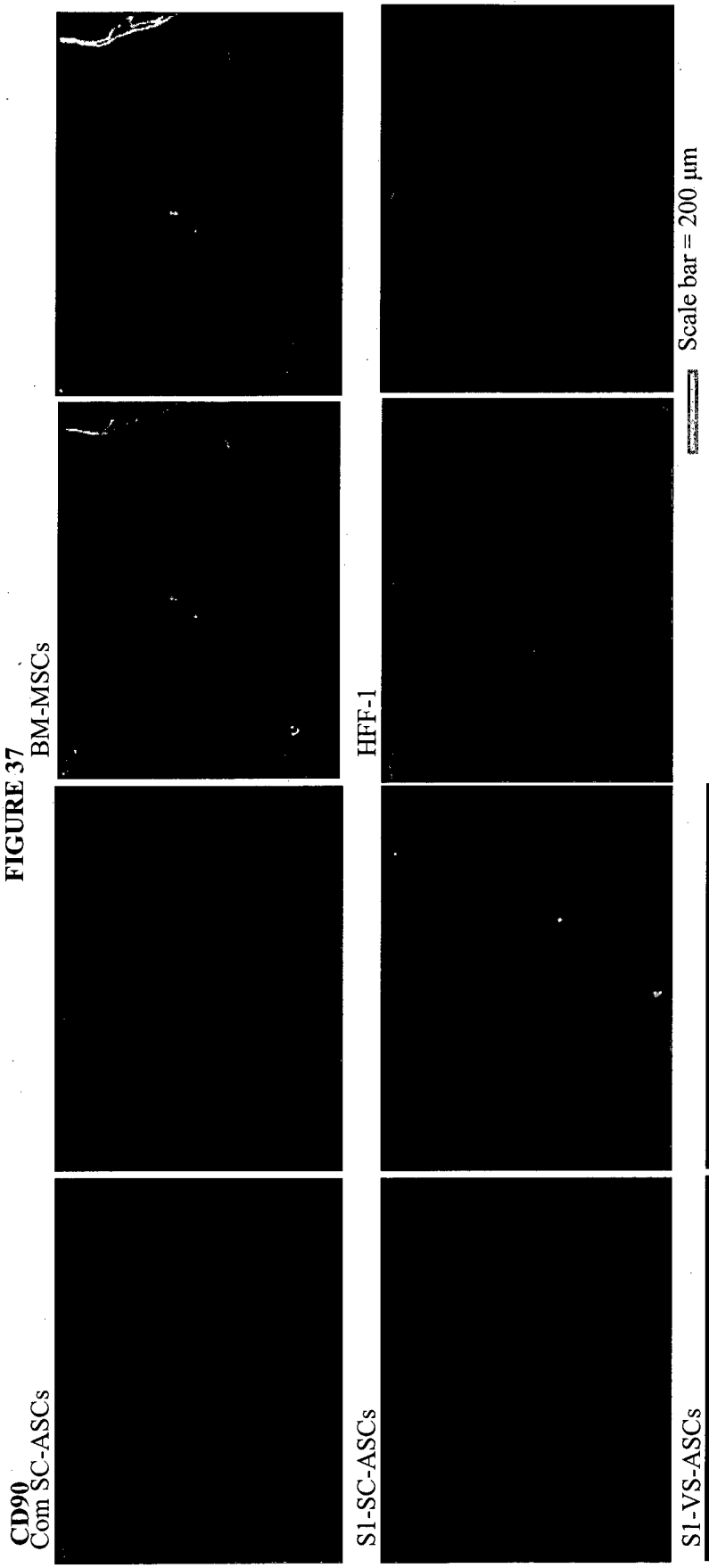
FIGURE 36



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
107	113	109	104	104

FIGURE 37

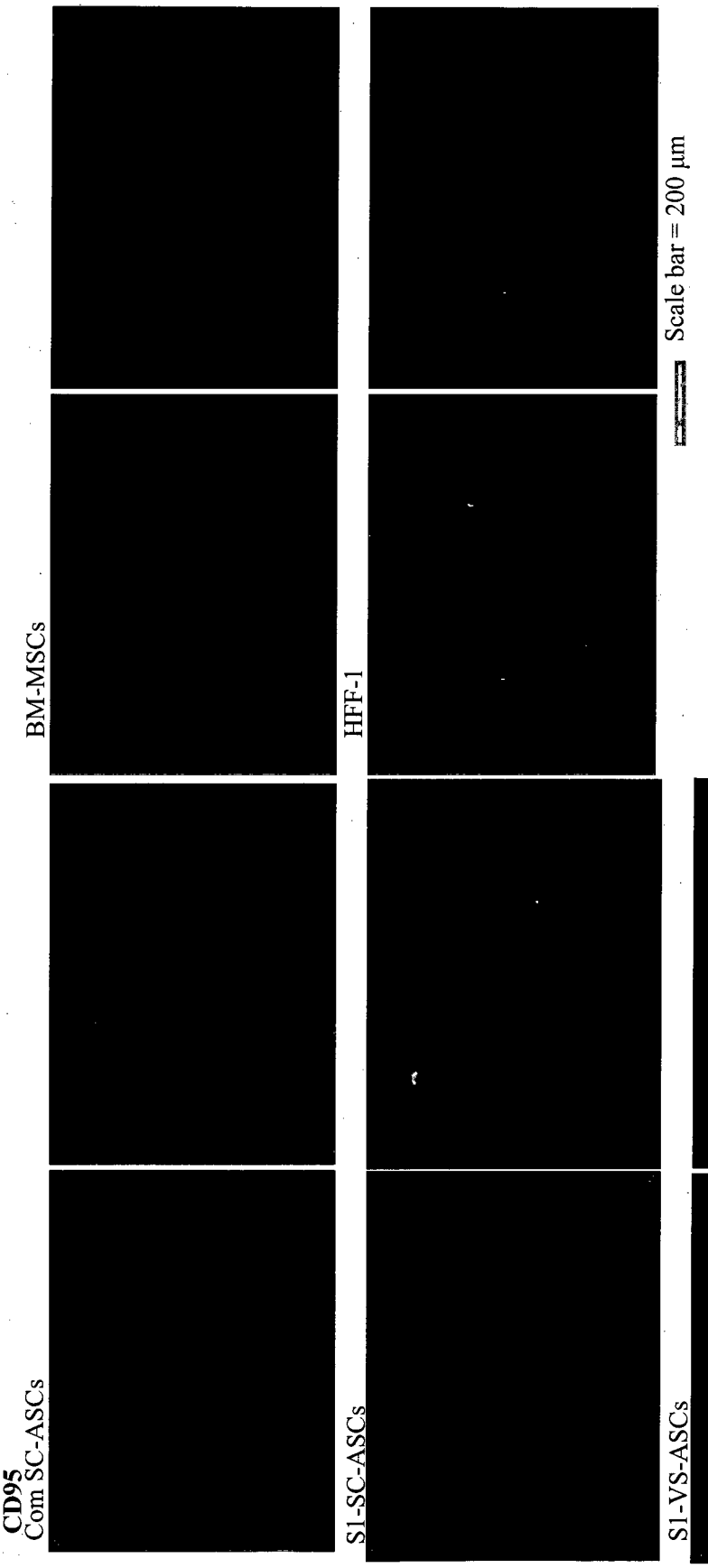


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
118	126	128	121	130

48/78

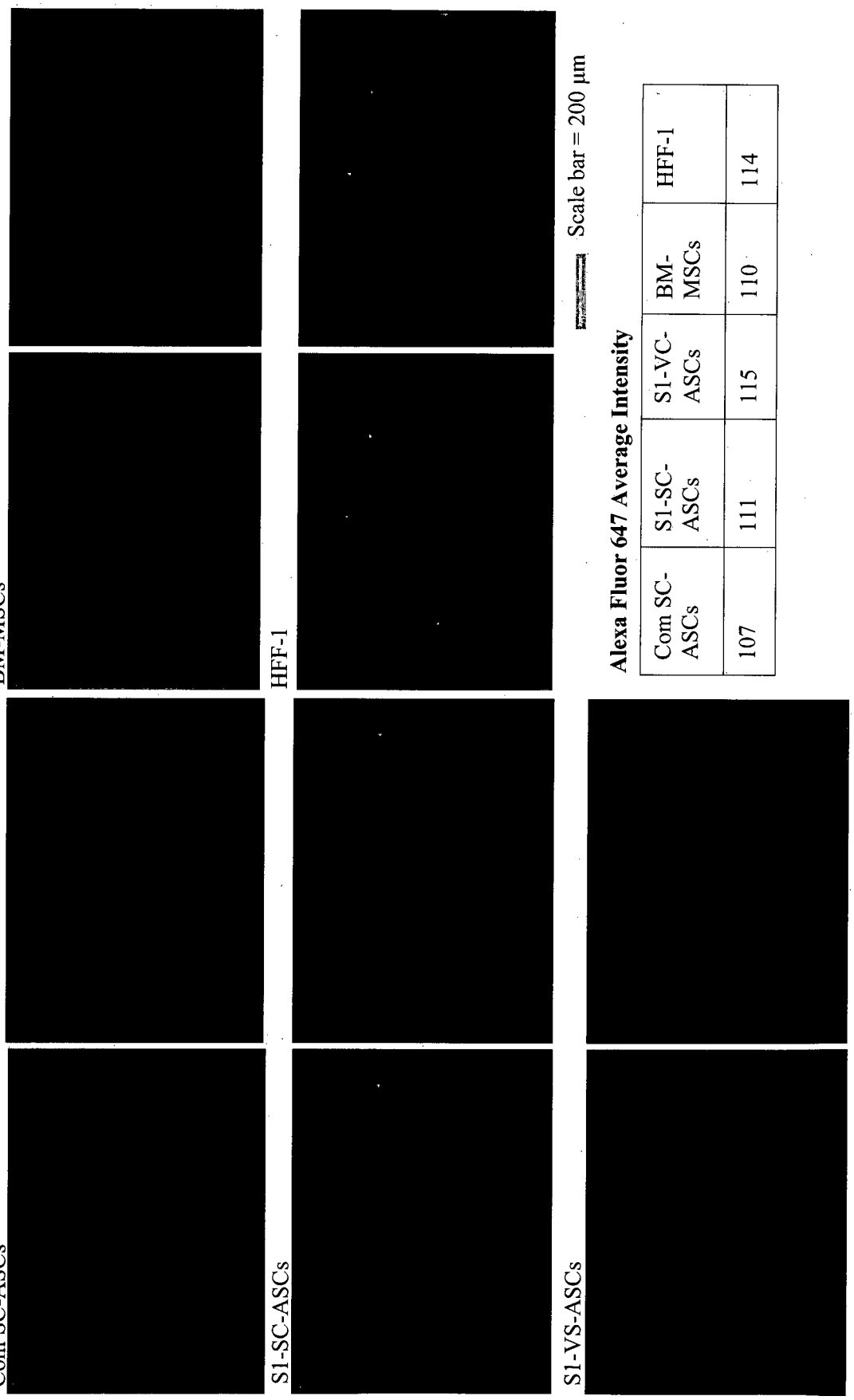
FIGURE 38



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
107	113	115	107	121

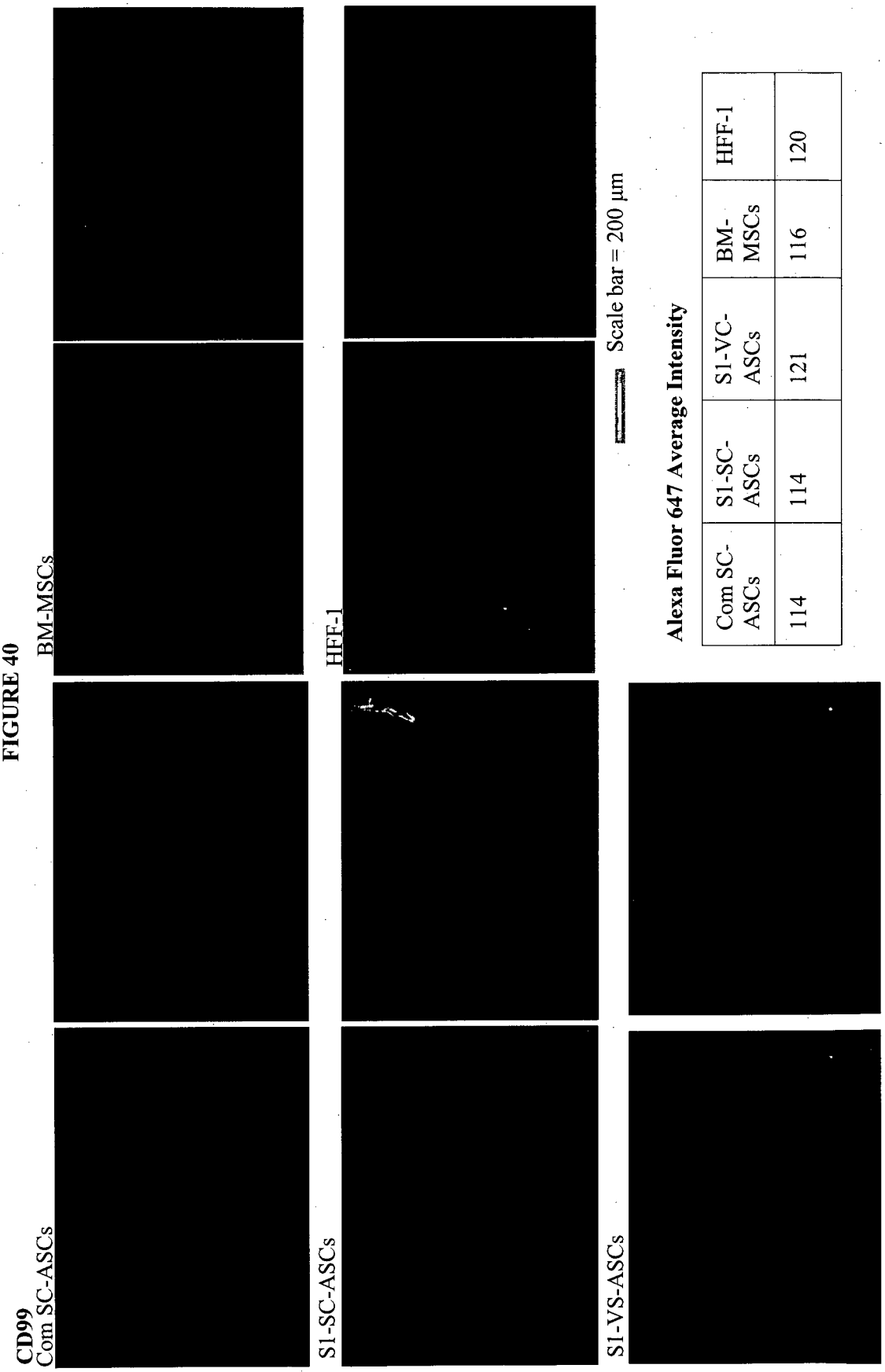
FIGURE 39



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
107	111	115	110	114

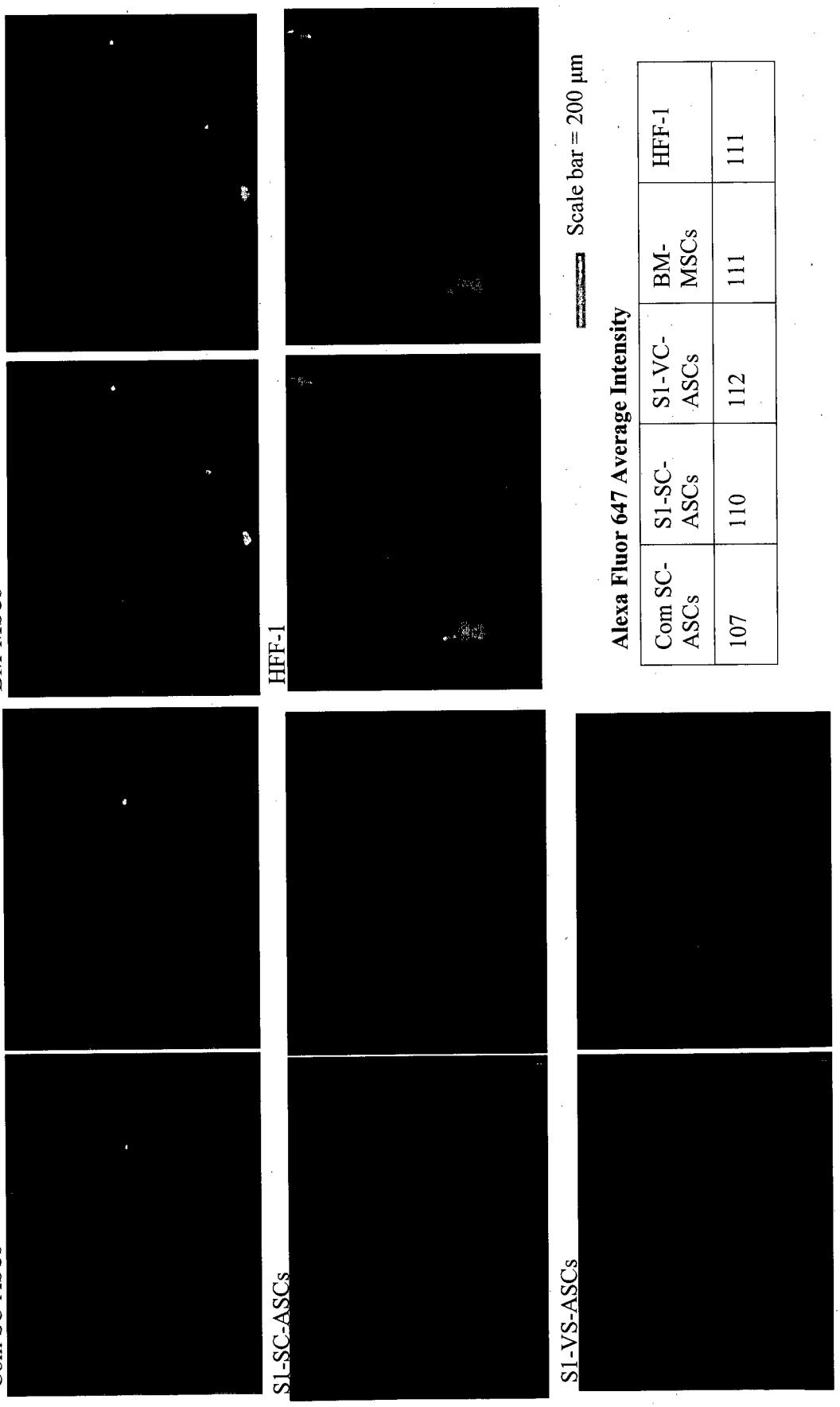
FIGURE 40



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
114	114	121	116	120

FIGURE 41



Alexa Fluor 647 Average Intensity

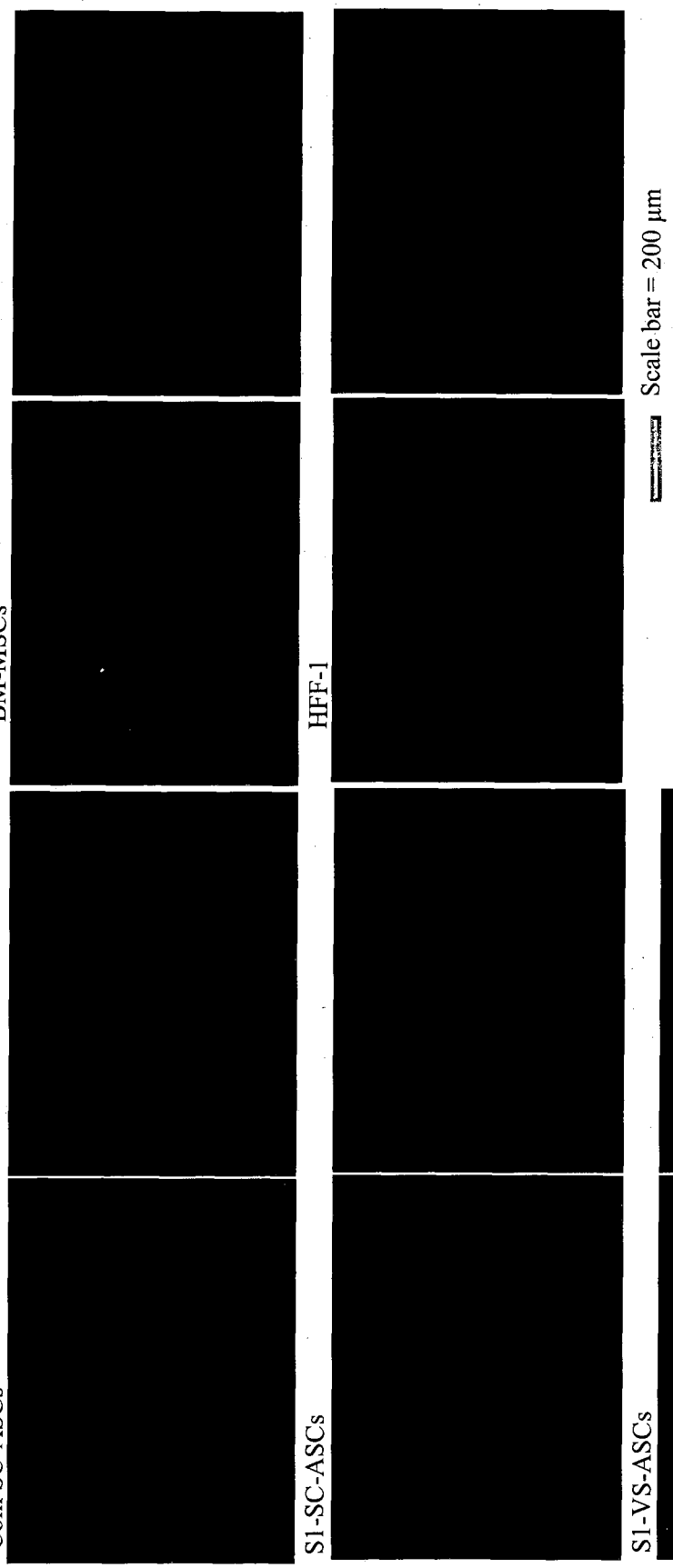
Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
107	110	112	111	111

FIGURE 42

Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
117	118	132	124	115

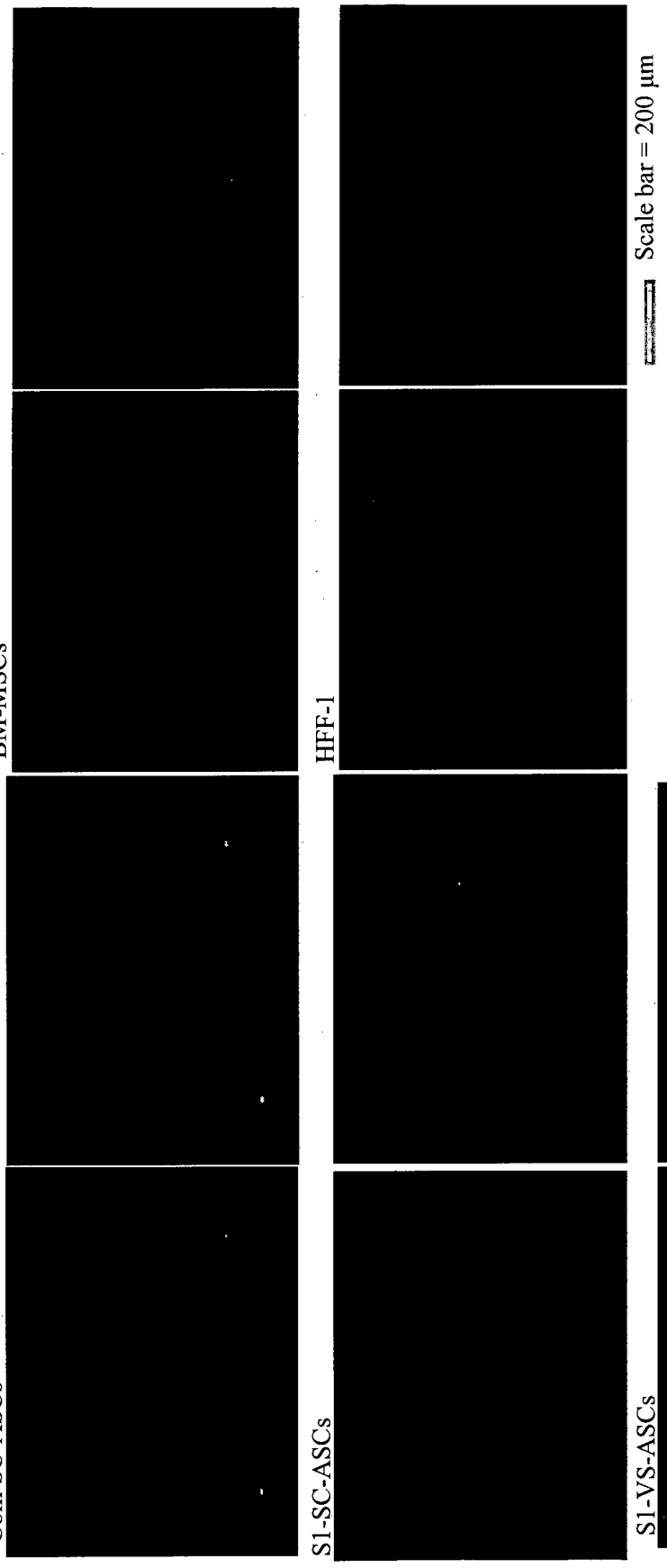
FIGURE 43



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
105	108	109	105	105

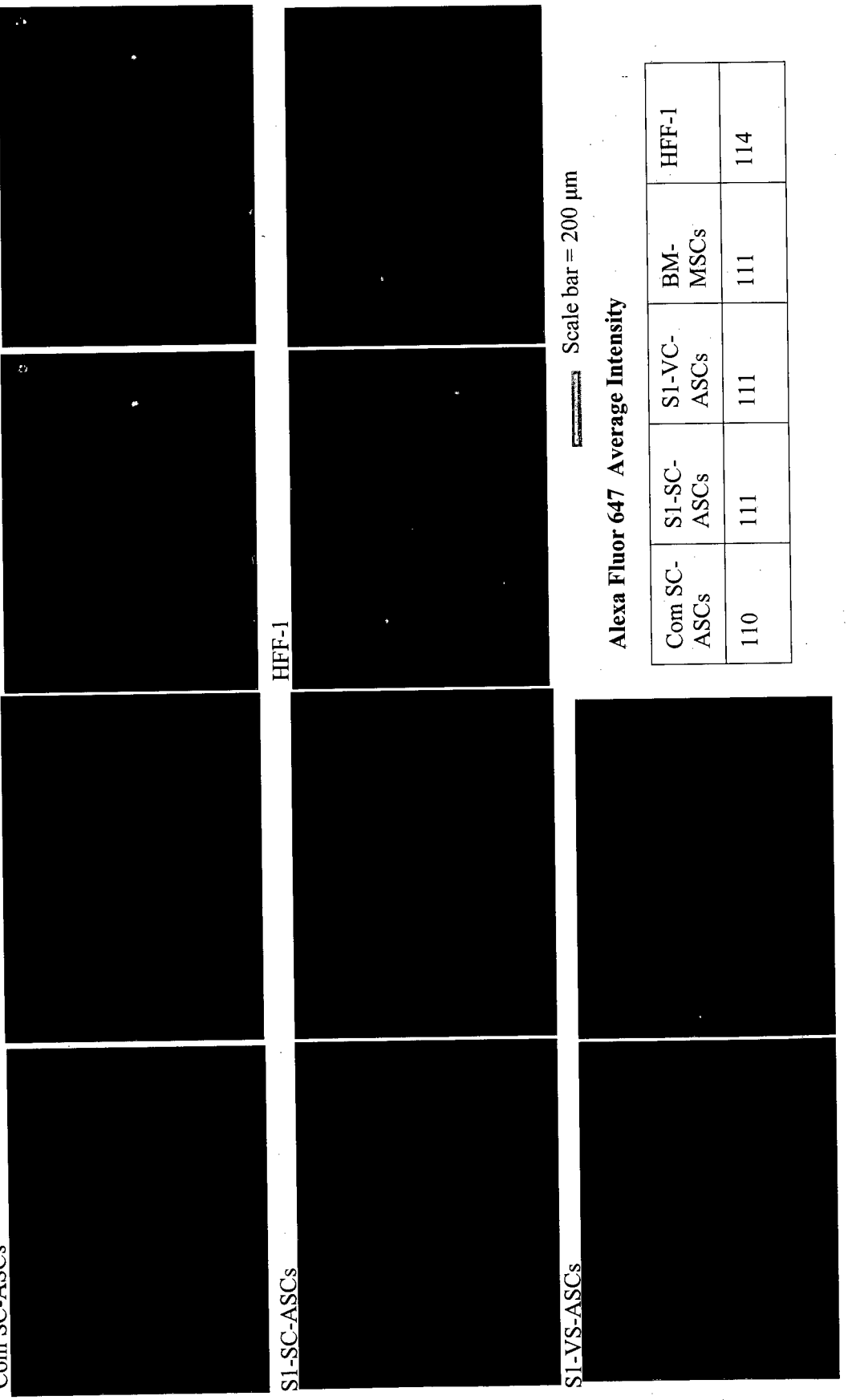
FIGURE 44



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
114	122	122	108	106

FIGURE 45



Alexa Fluor 647 Average Intensity

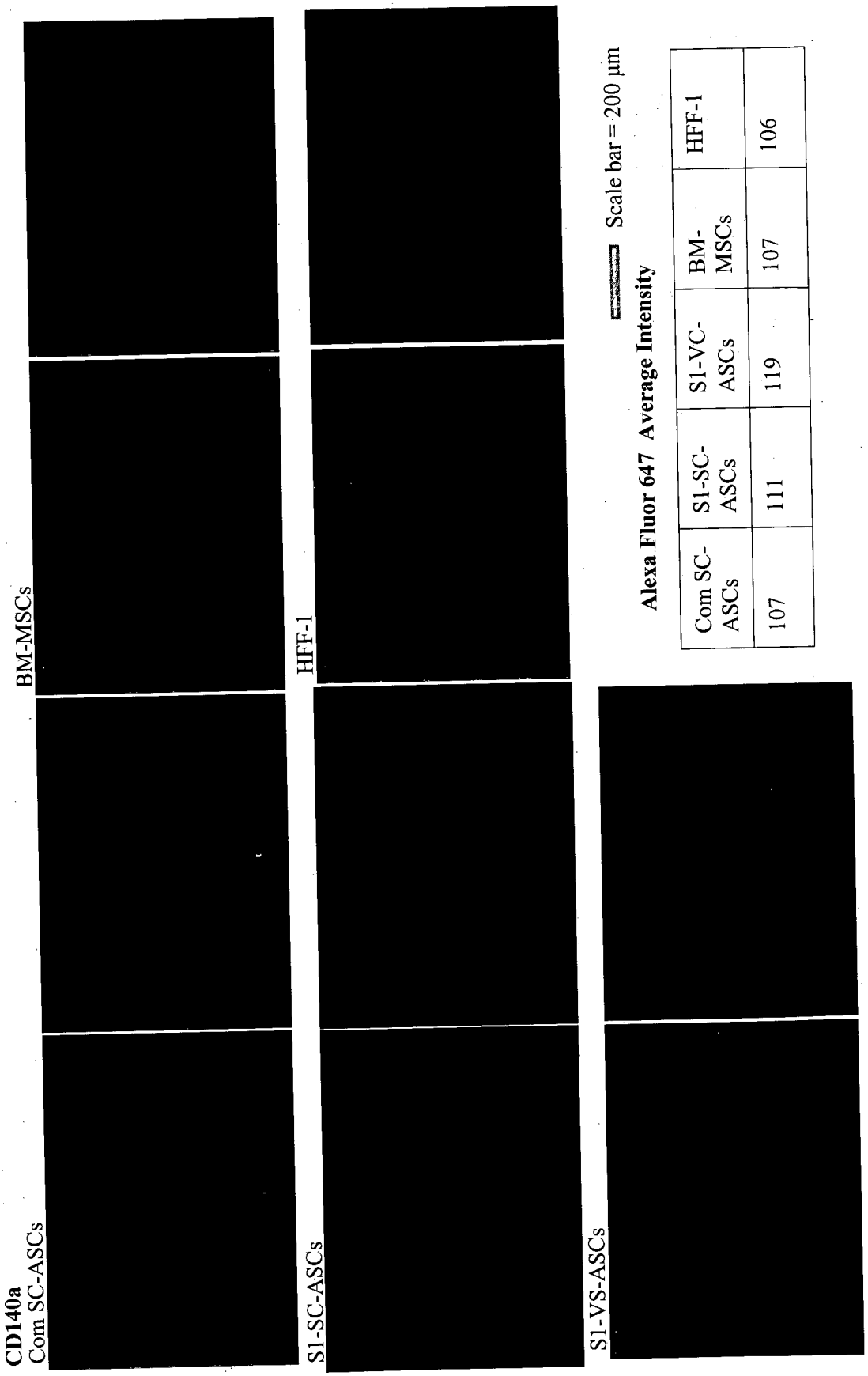
Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
110	111	111	111	114

FIGURE 46

Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
114	118	122	112	119

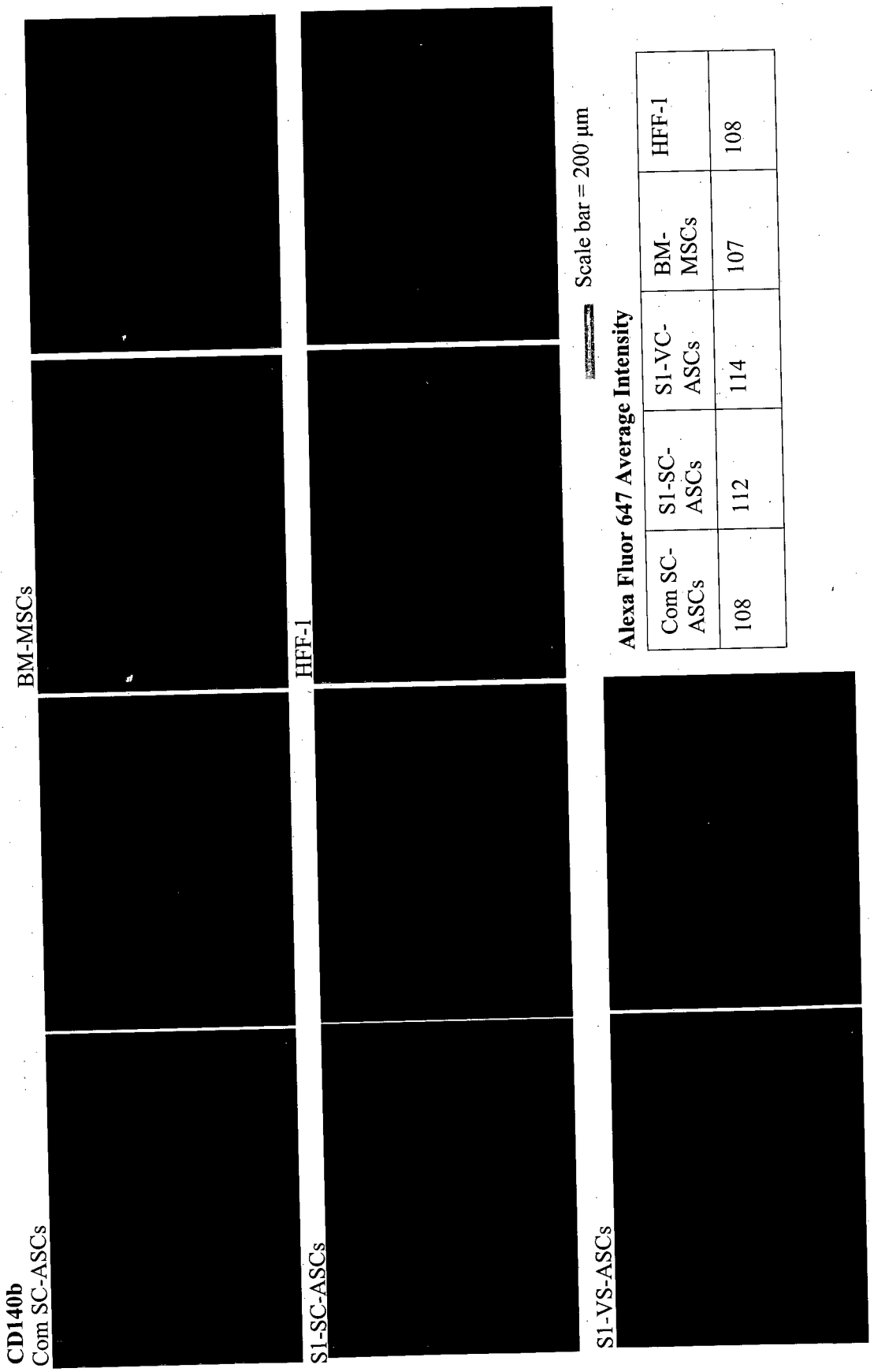
FIGURE 47



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
107	111	119	107	106

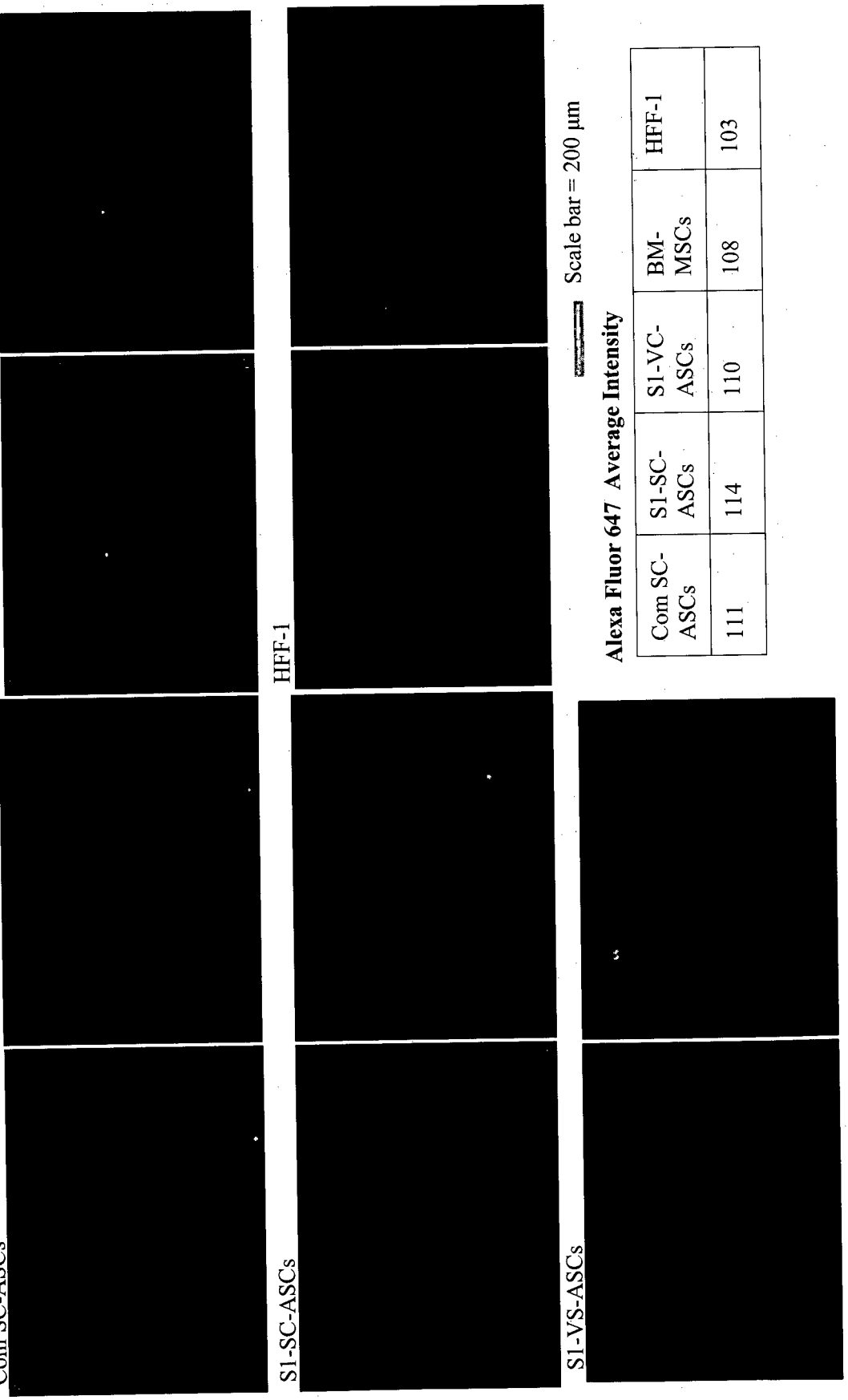
FIGURE 48



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
108	112	114	107	108

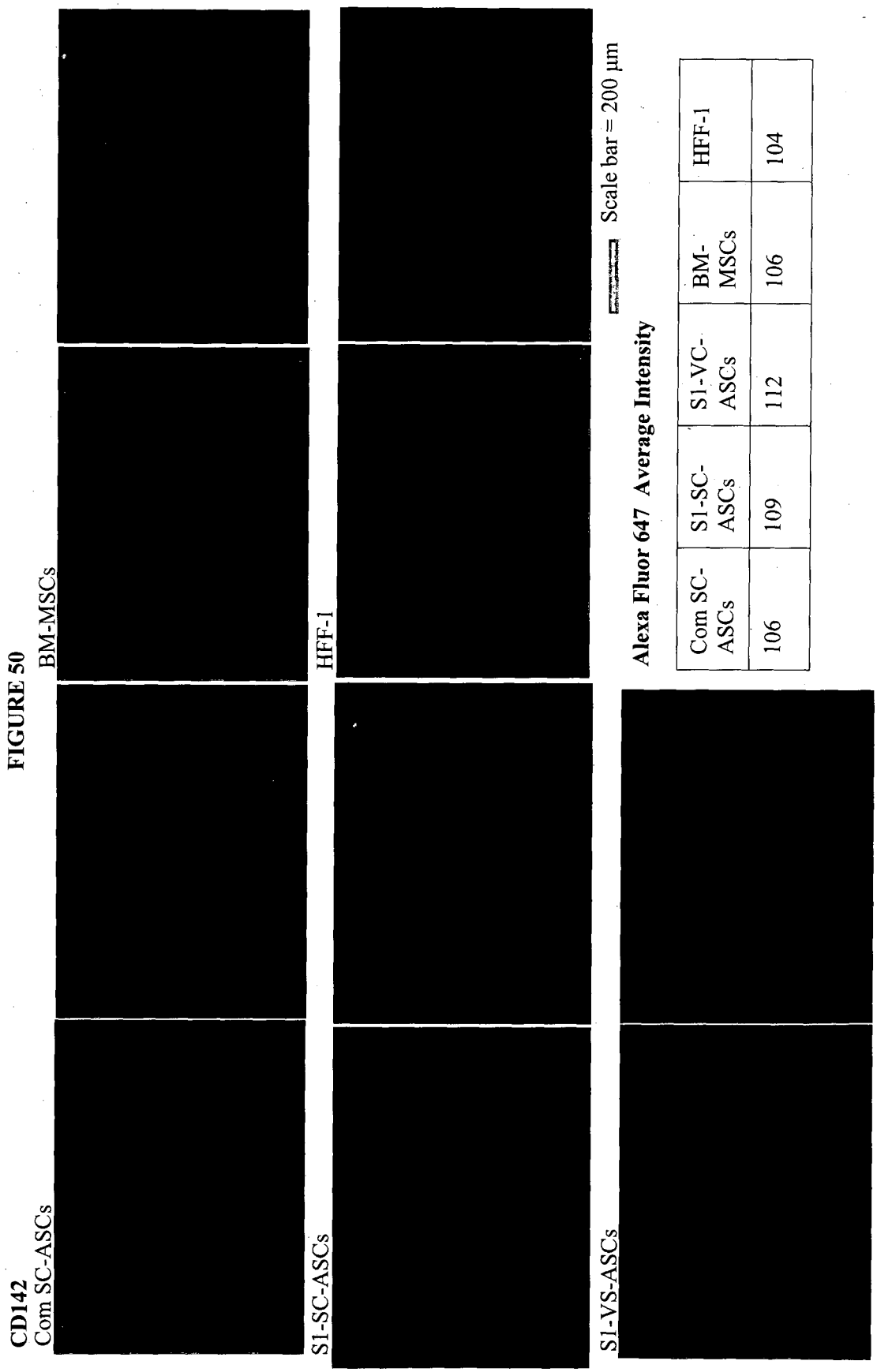
FIGURE 49



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
111	114	110	108	103

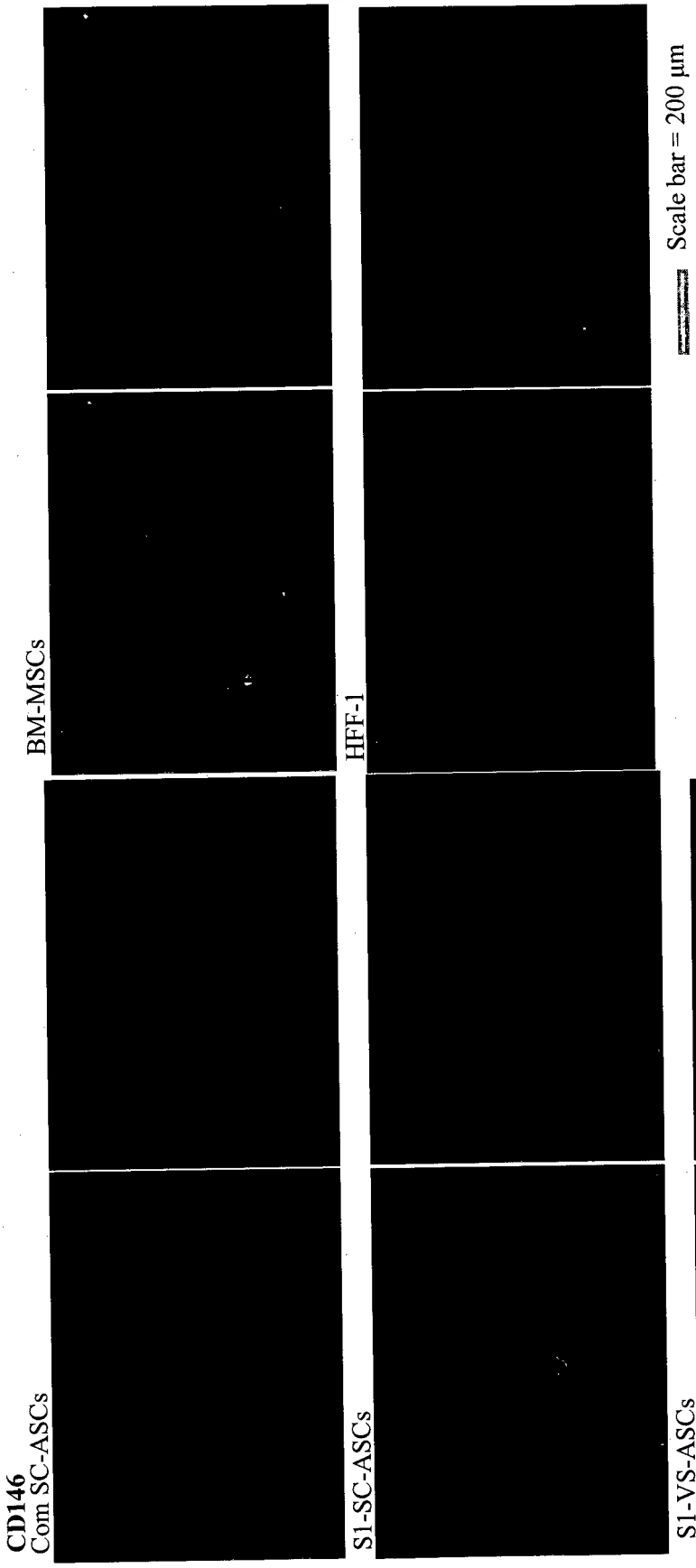
FIGURE 50



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
106	109	112	106	104

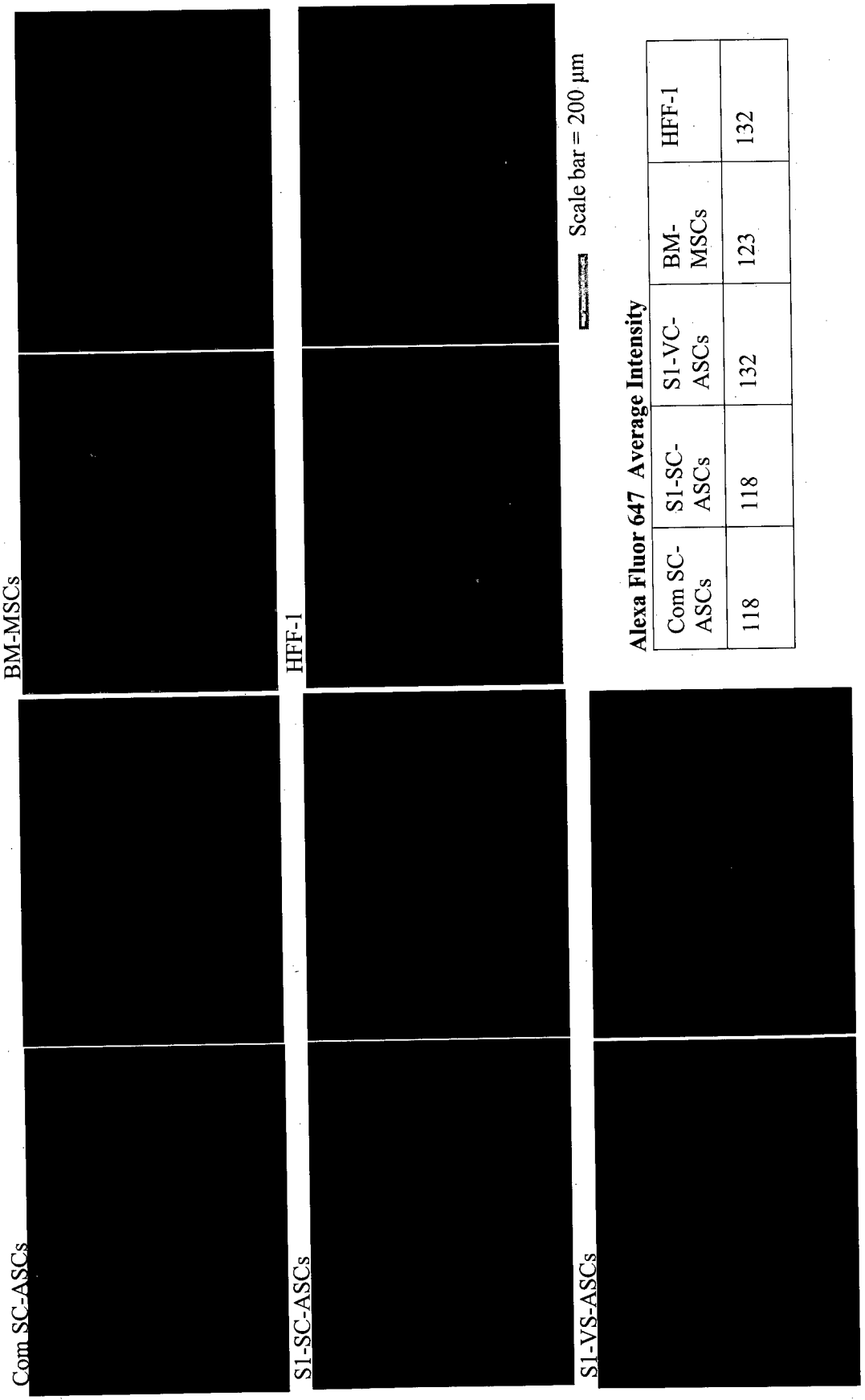
FIGURE 51



Alexa Fluor 647 Average Intensity

Com SC-ASCsr	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
105	110	110	115	107

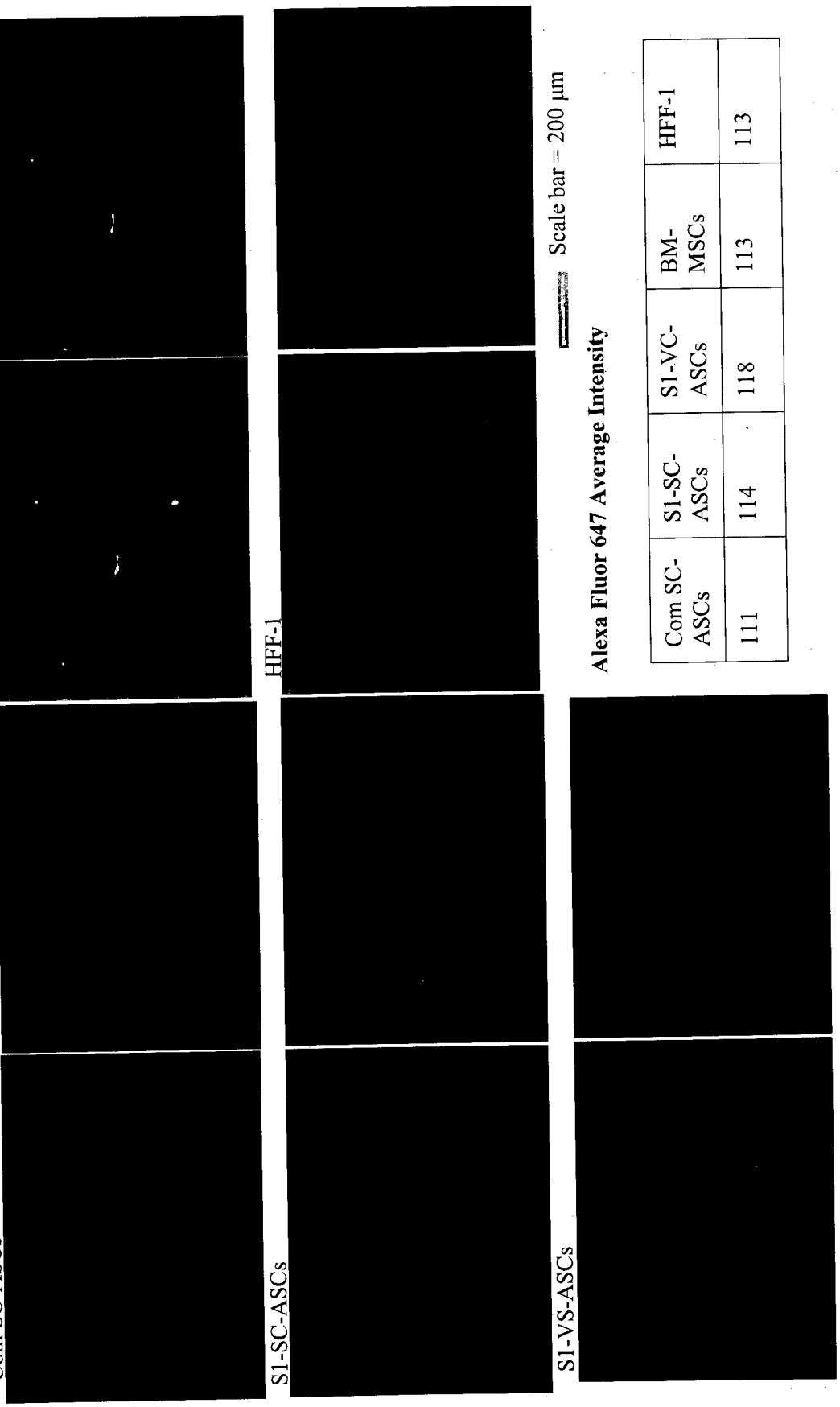
FIGURE 52



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
118	118	132	123	132

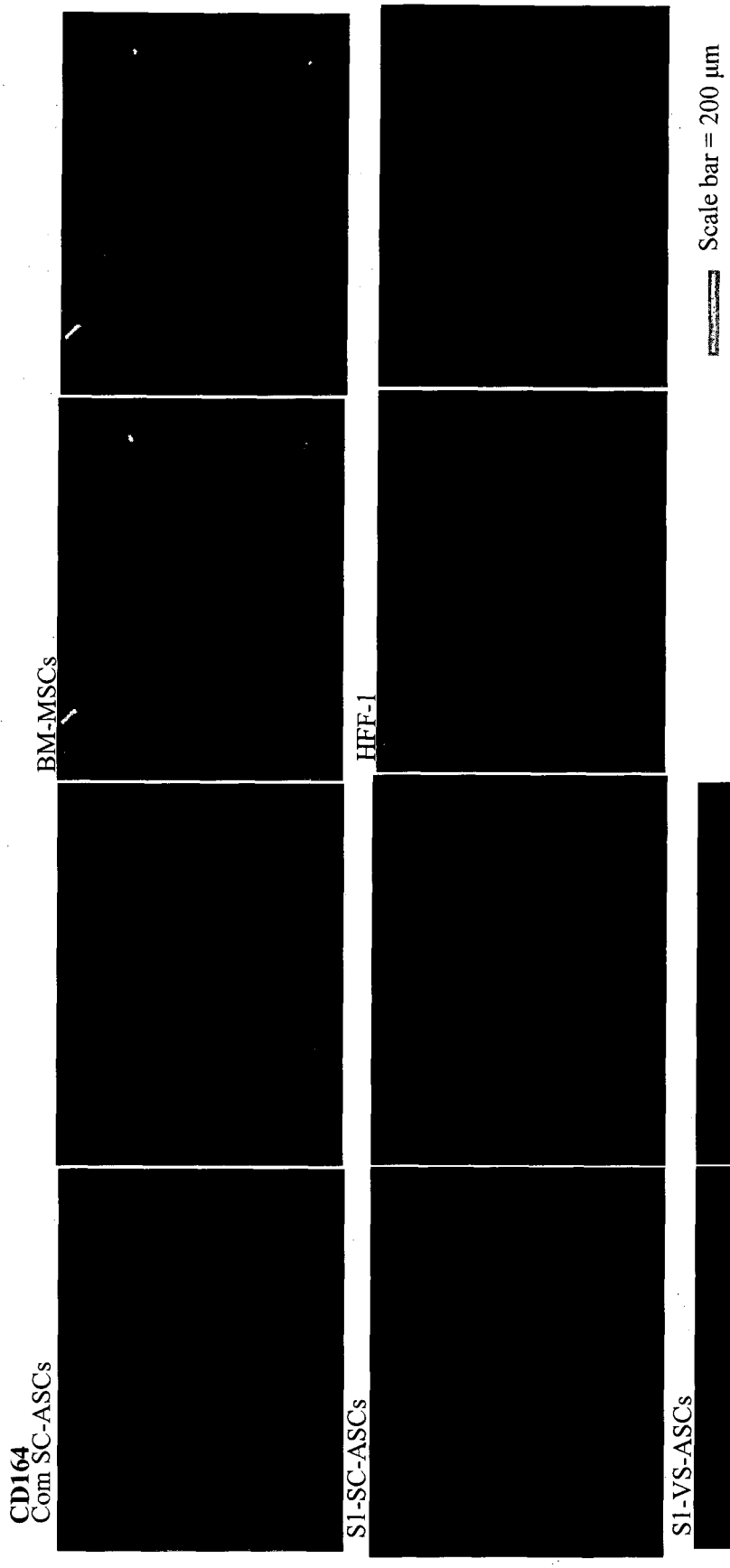
FIGURE 53



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
111	114	118	113	113

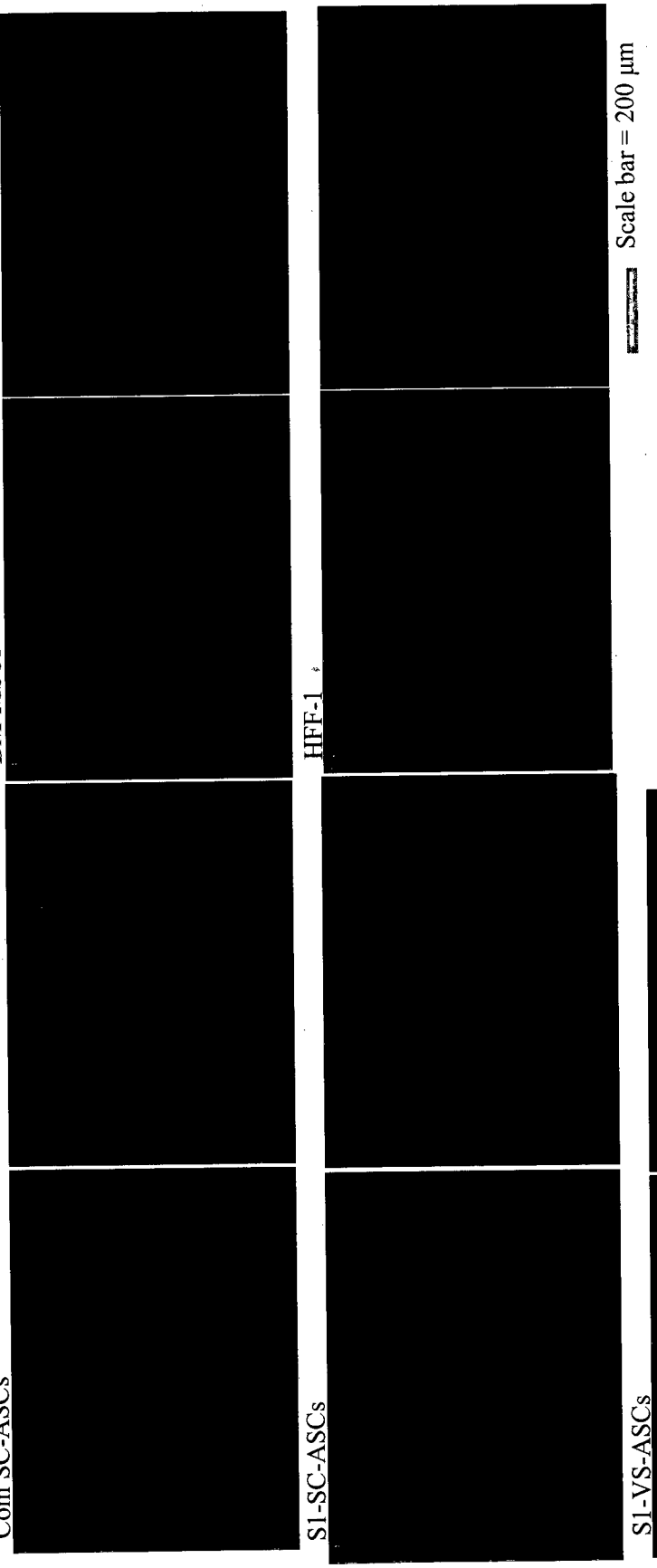
FIGURE 54



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
109	110	114	111	110

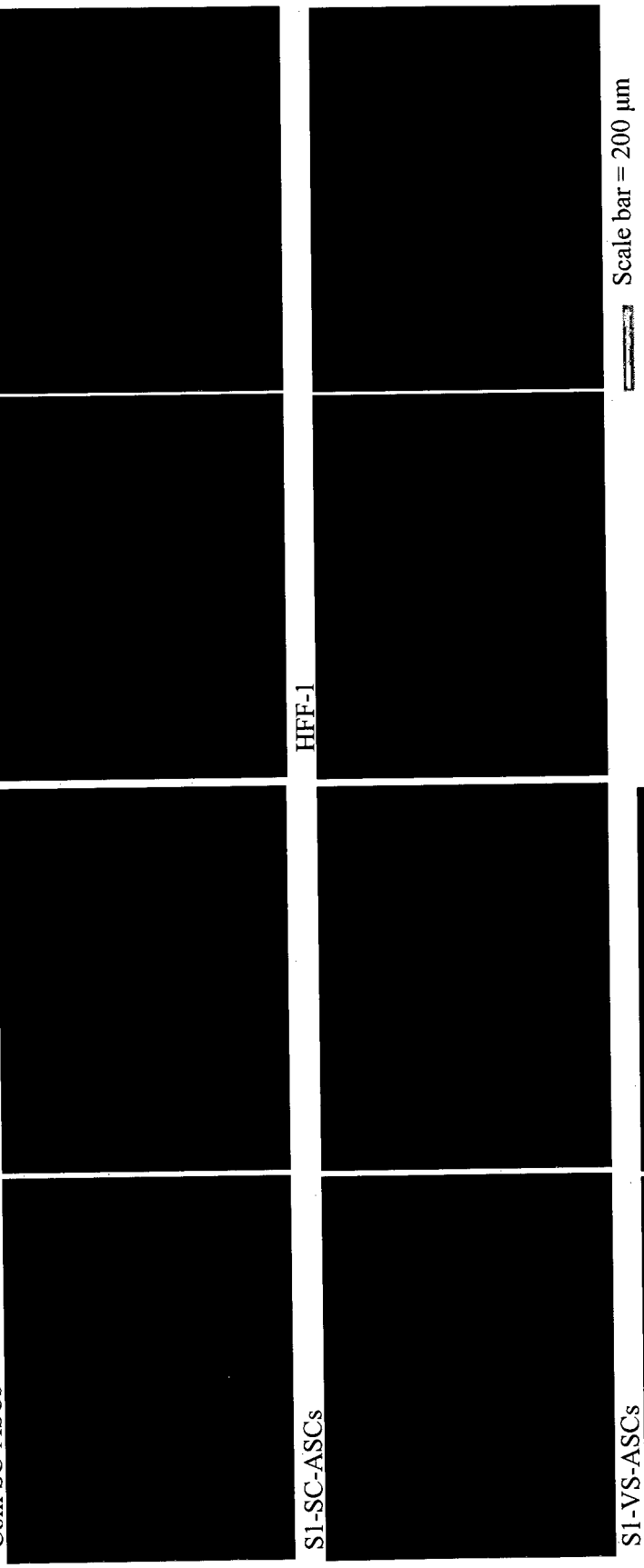
FIGURE 55



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
111	115	119	113	113

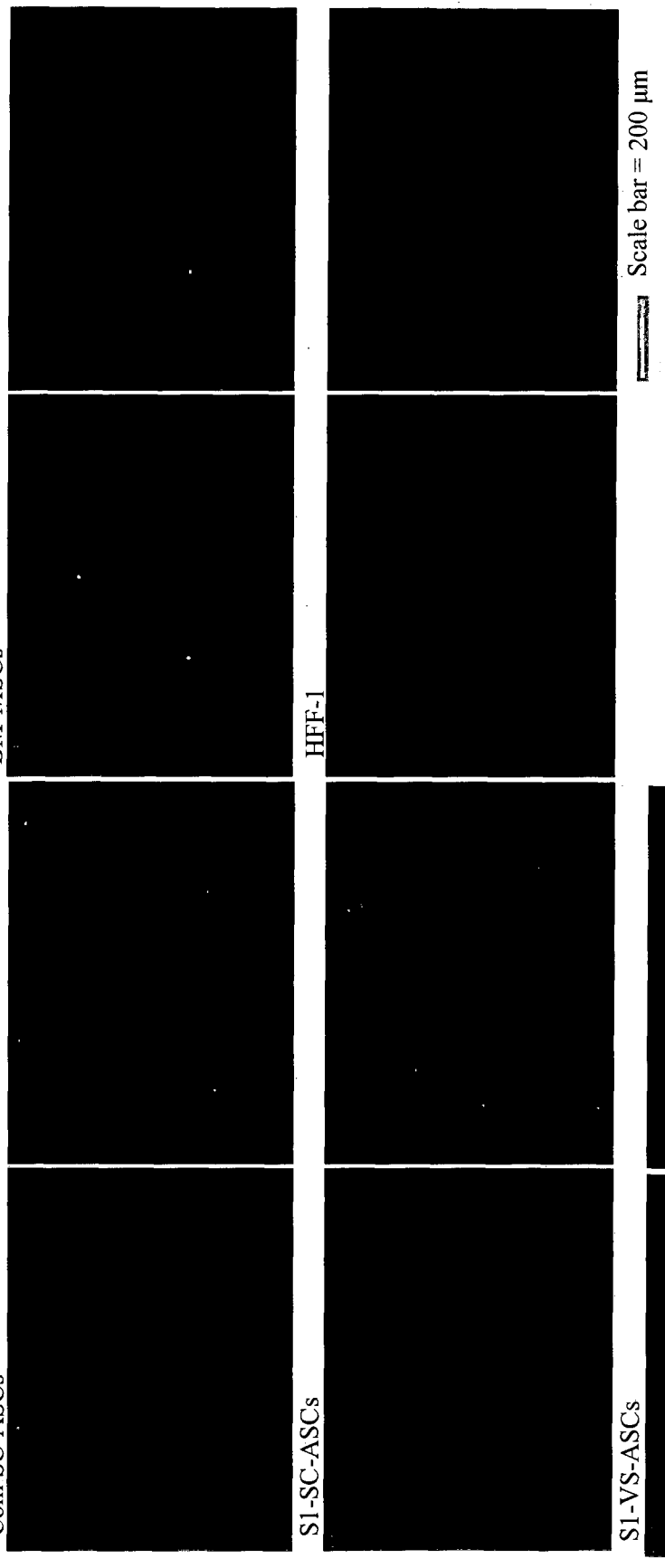
FIGURE 56



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
105	108	115	106	104

FIGURE 57

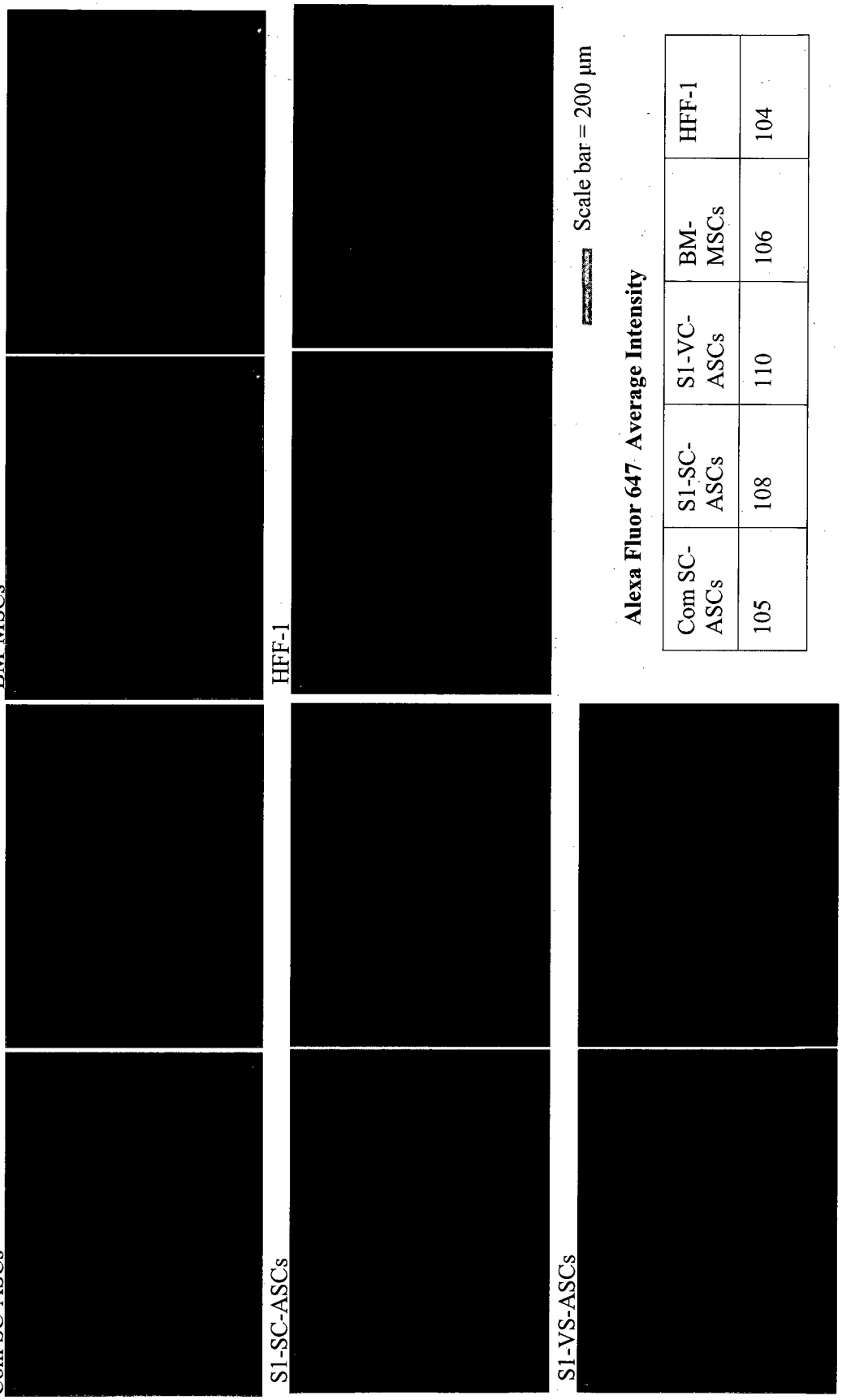


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
124	136*	126	116	108

*High Background

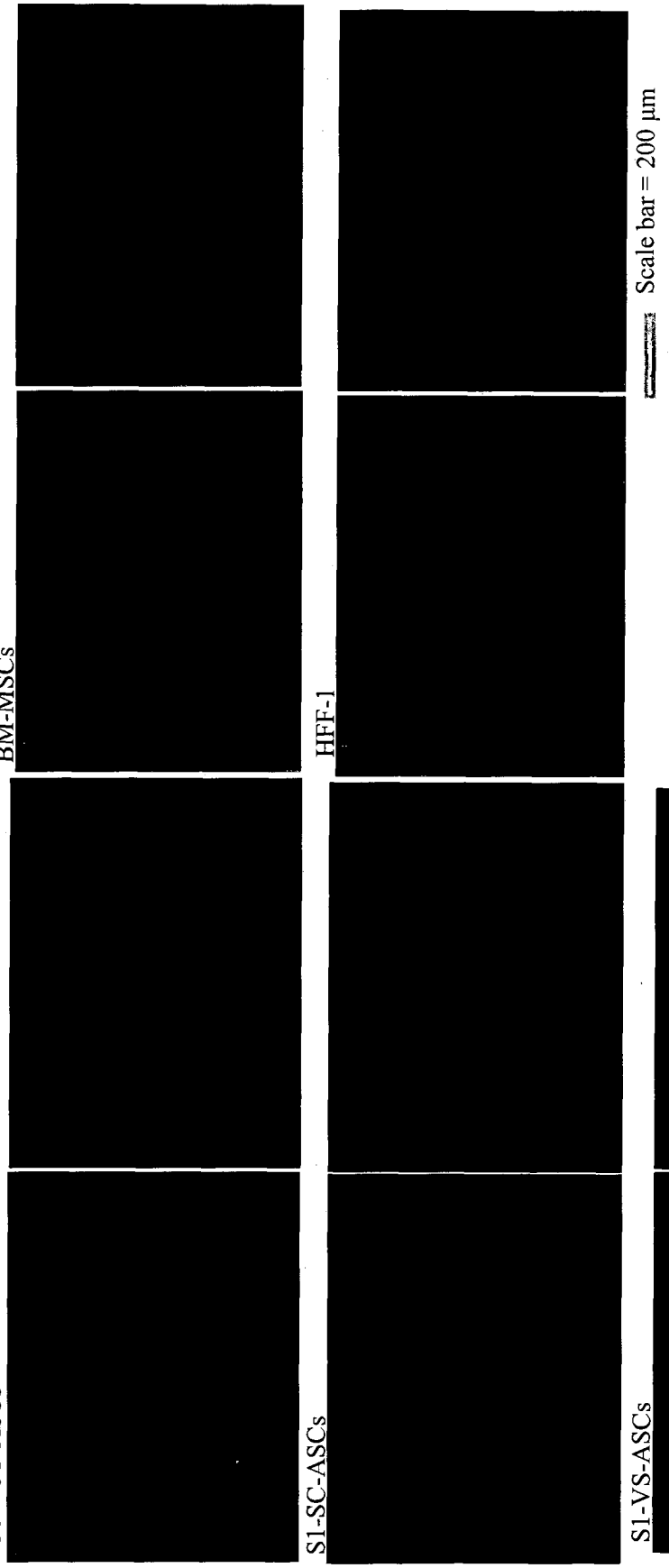
FIGURE 58



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
105	108	110	106	104

FIGURE 59



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
105	113	112	106	104

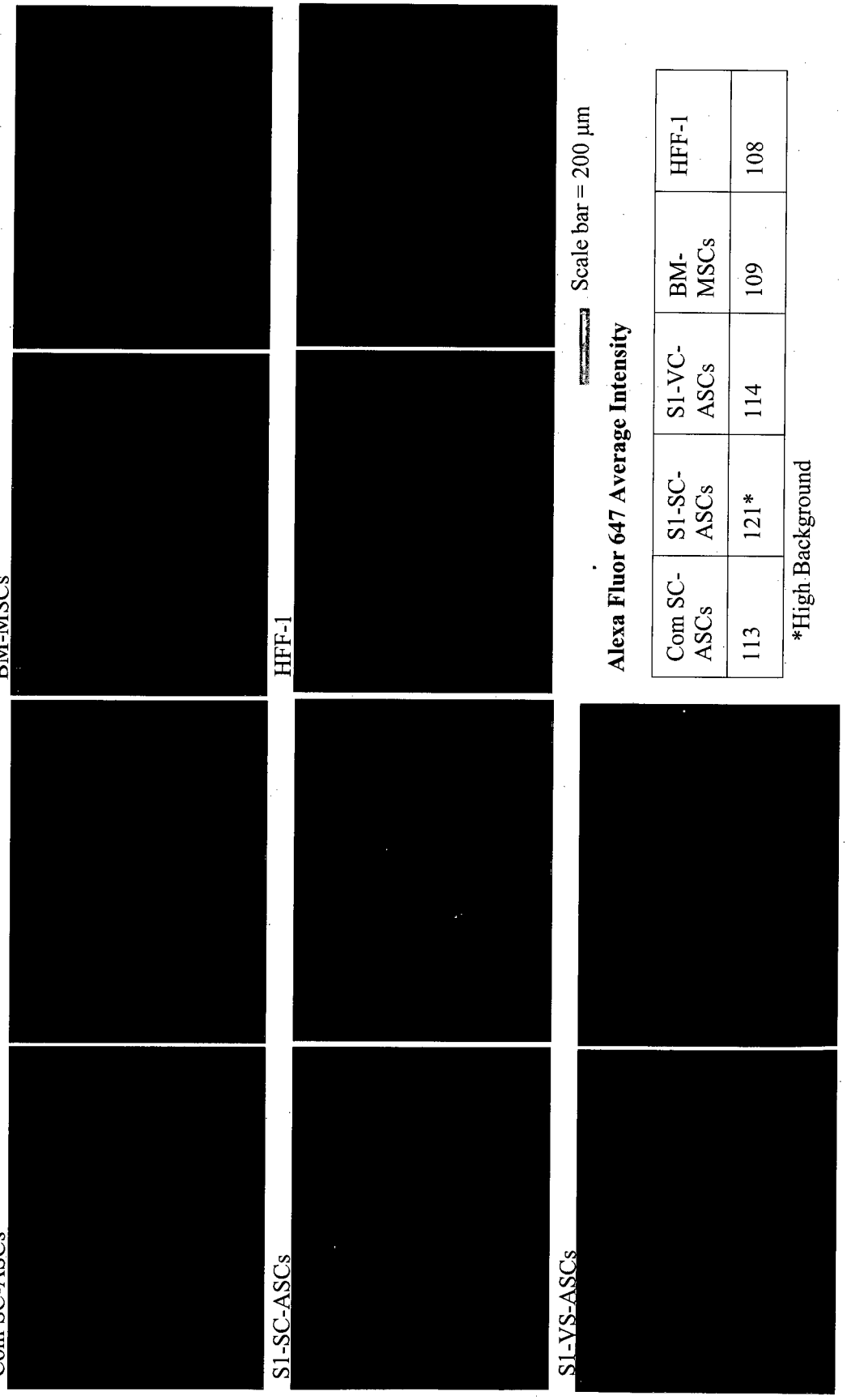
FIGURE 60

Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
124	134*	122	119	115

*High Background

FIGURE 61

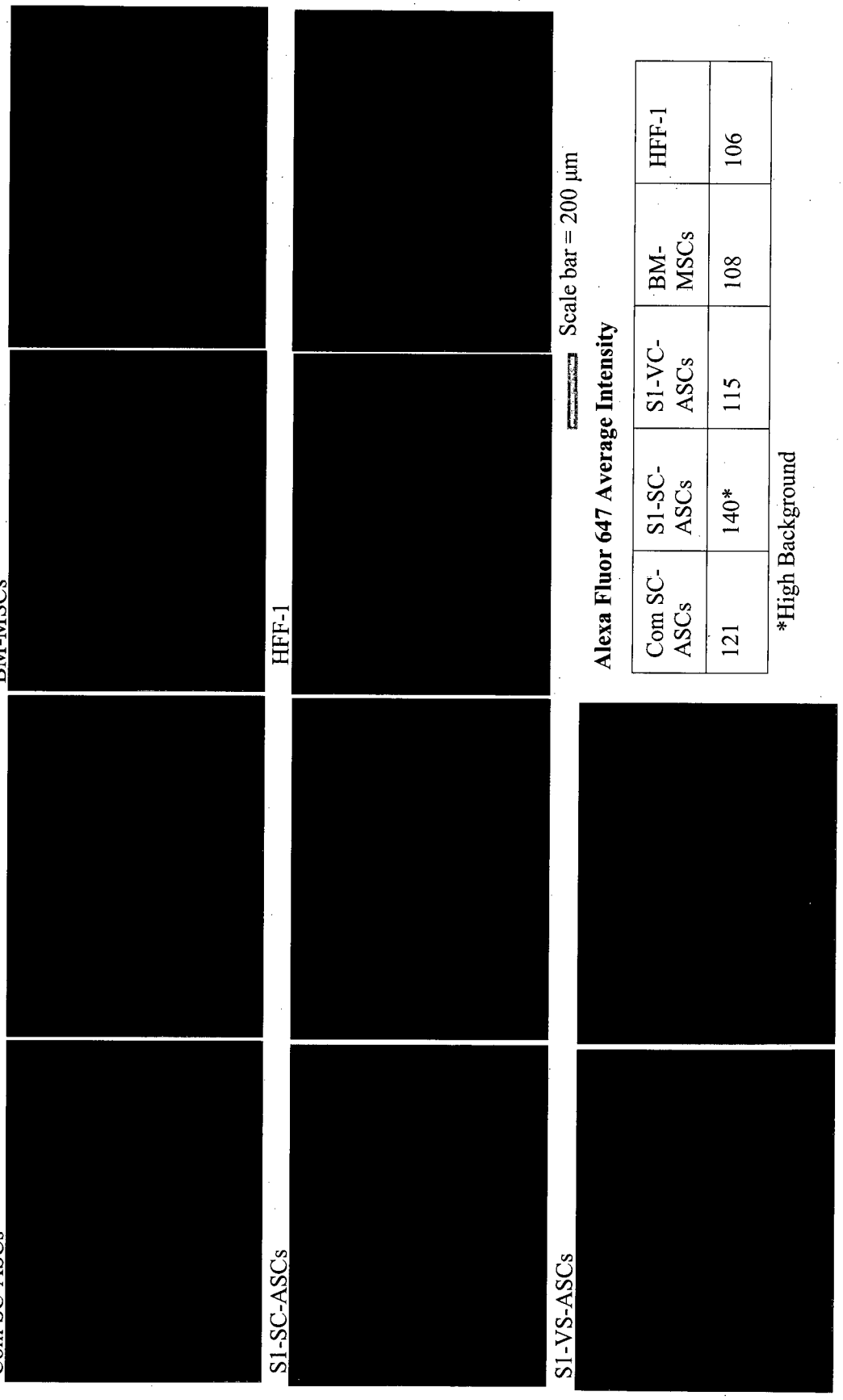


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
113	121*	114	109	108

*High Background

FIGURE 62

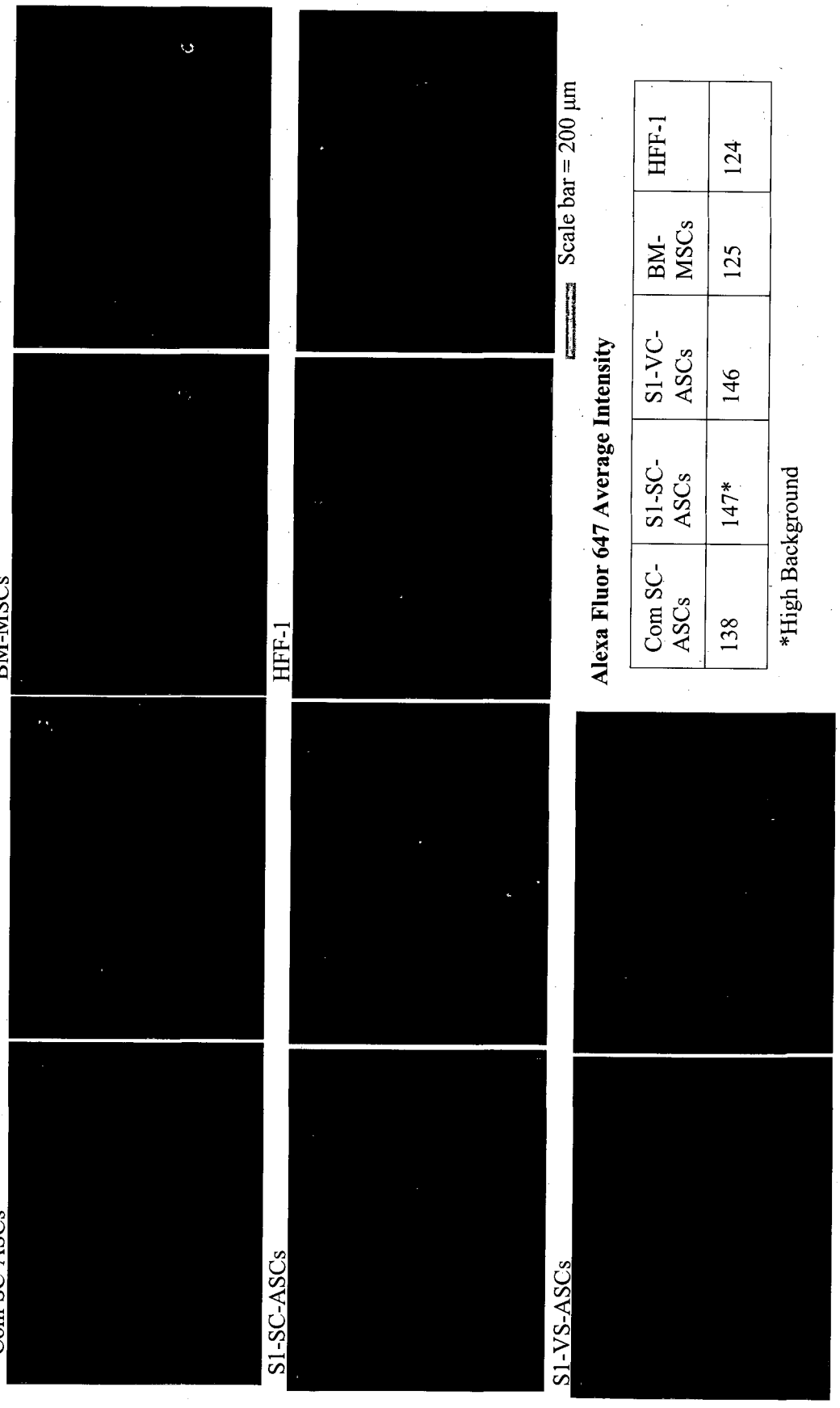


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
121	140*	115	108	106

*High Background

FIGURE 63

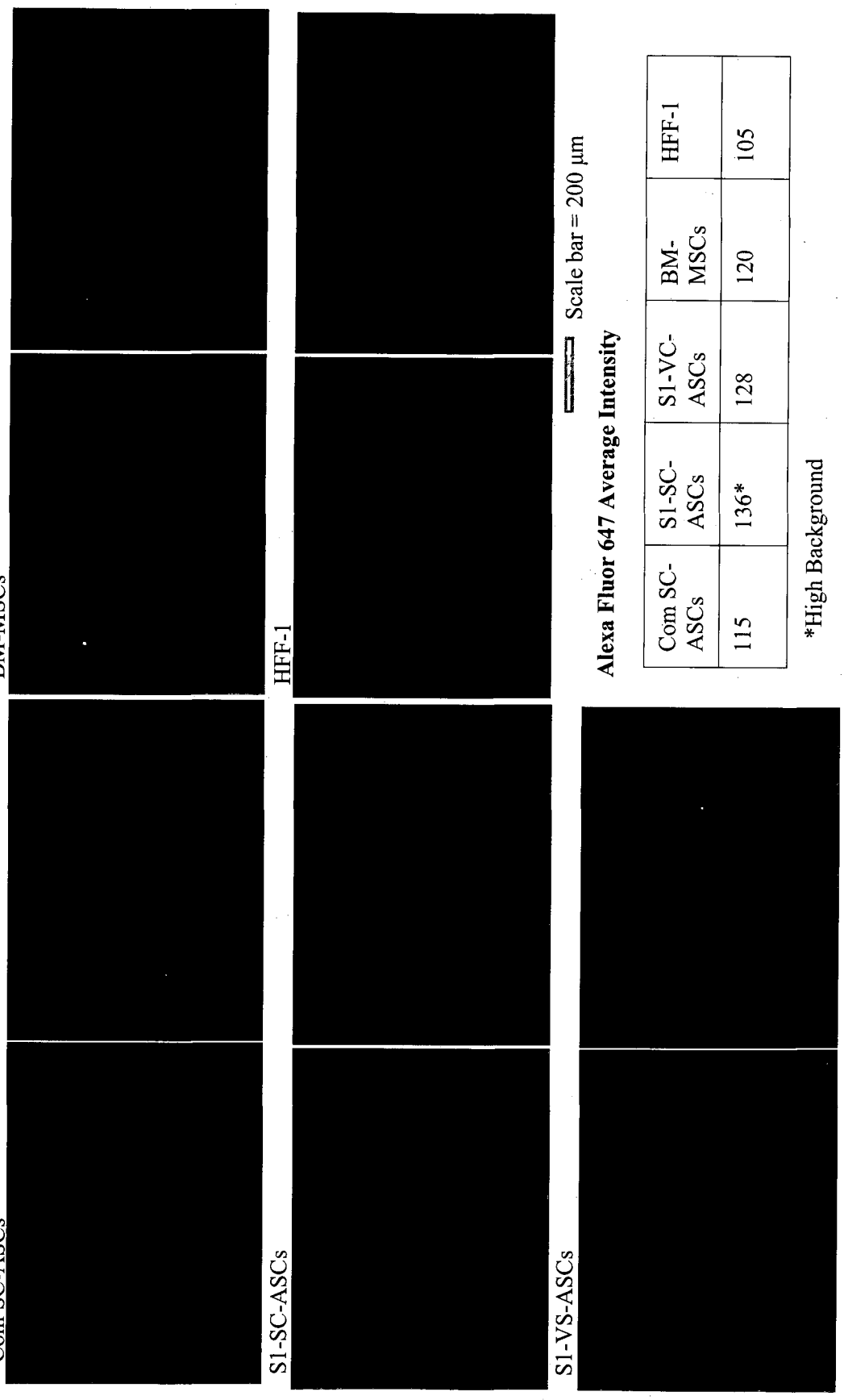


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
138	147*	146	125	124

*High Background

FIGURE 64

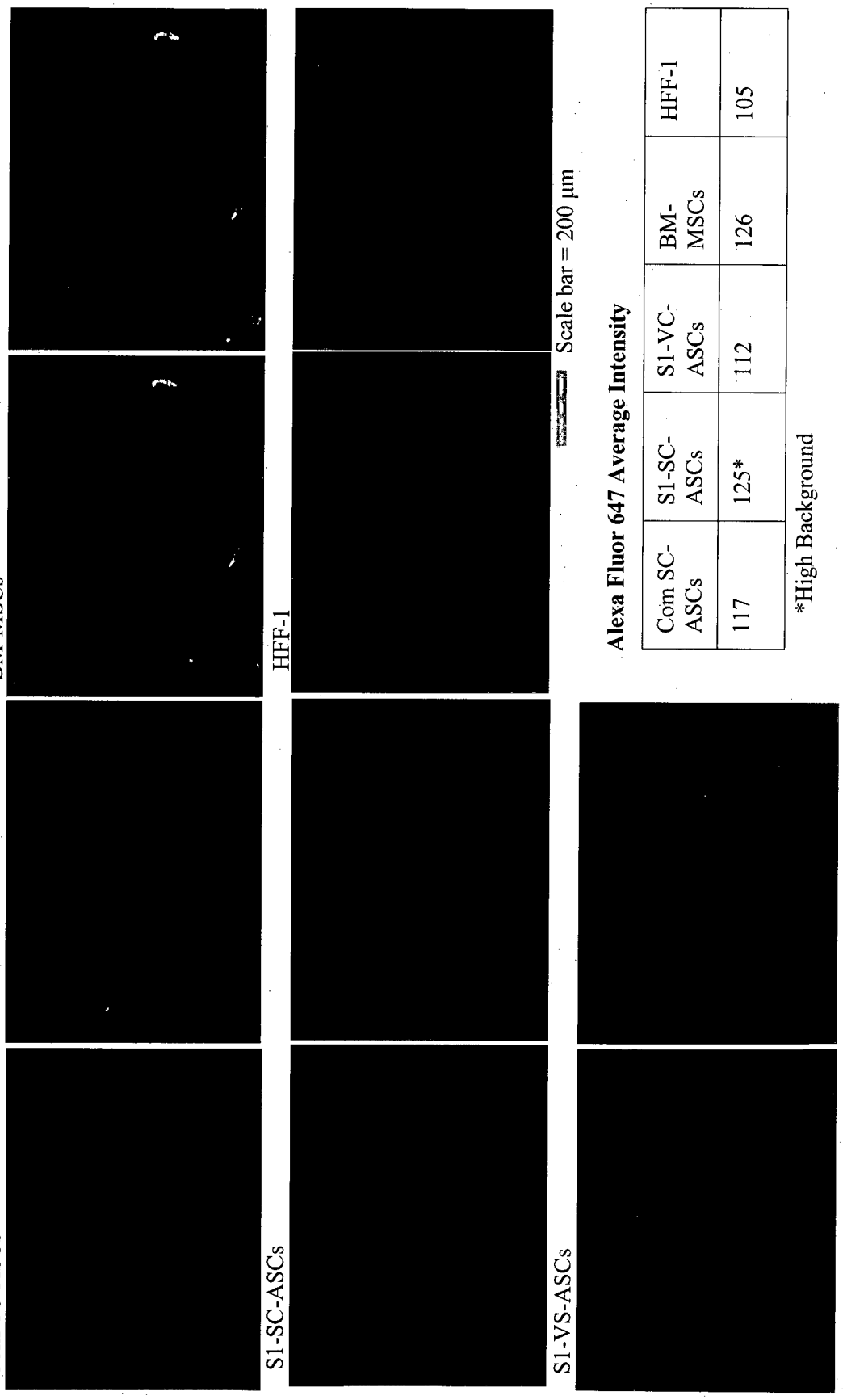


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
115	136*	128	120	105

*High Background

FIGURE 65

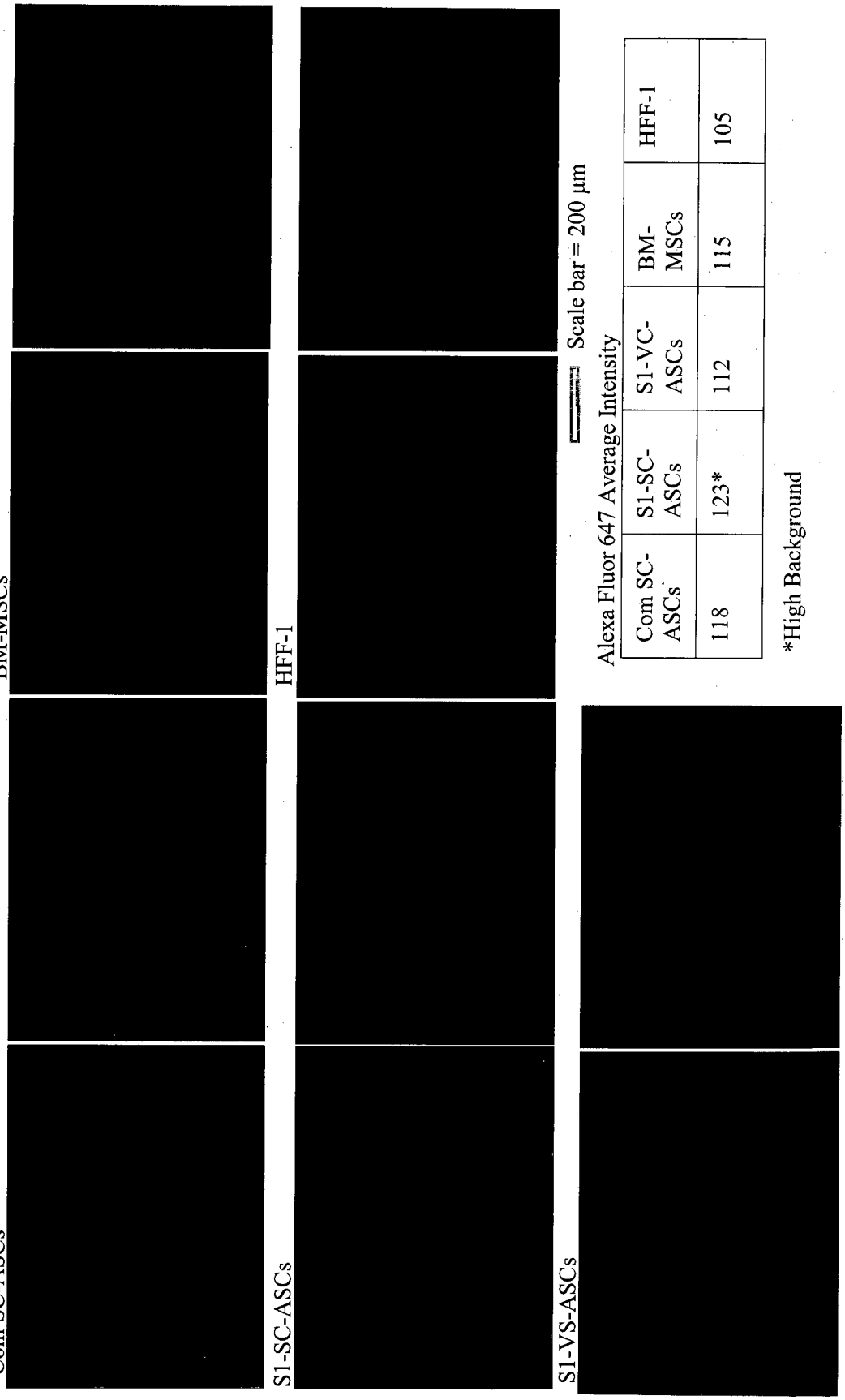


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
117	125*	112	126	105

*High Background

FIGURE 66

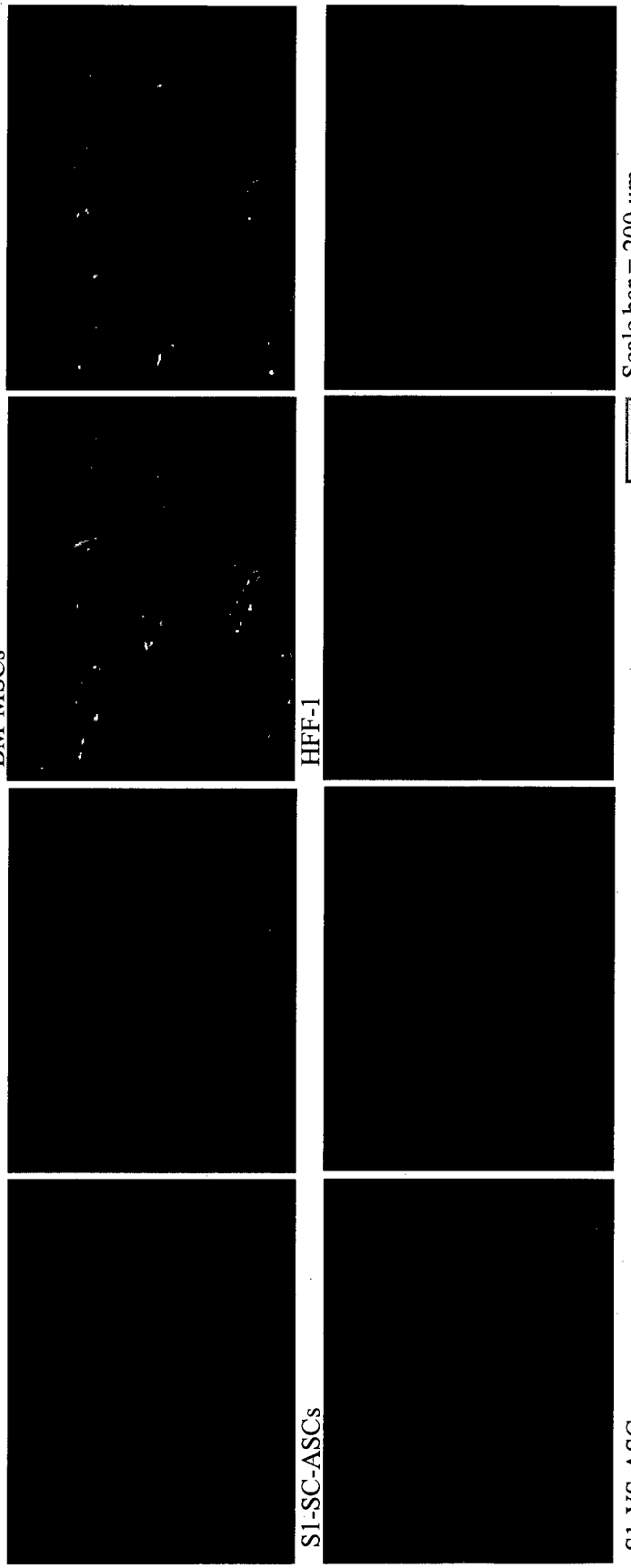


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
118	123*	112	115	105

*High Background

FIGURE 67

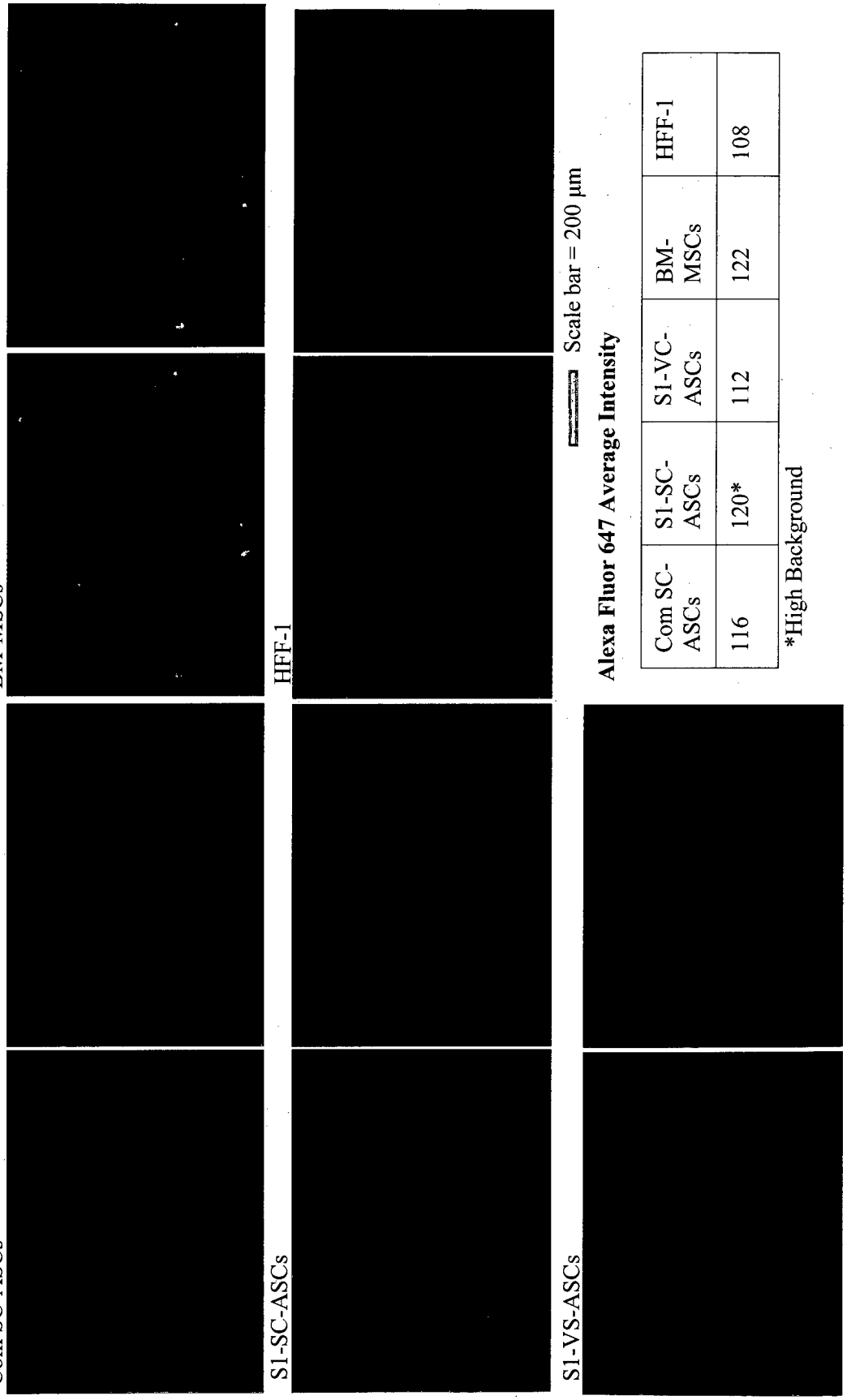


Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
113	121*	112	124	106

*High Background

FIGURE 68



Alexa Fluor 647 Average Intensity

Com SC-ASCs	S1-SC-ASCs	S1-VC-ASCs	BM-MSCs	HFF-1
116	120*	112	122	108

*High Background