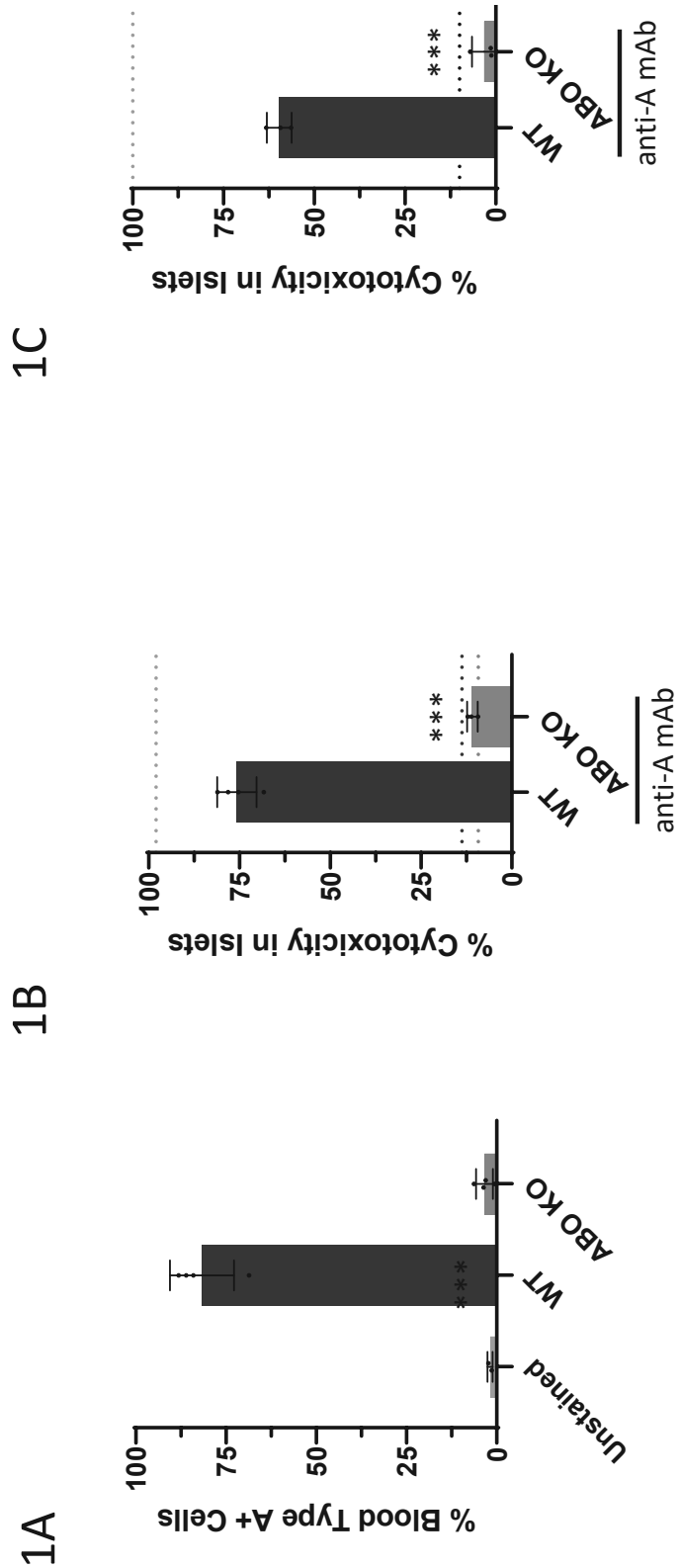

1A
% Blood Type A+ Cells
100
75
50
25
0
Unstained
WT
ABO KO
***
1B
% Cytotoxicity in Islets
100
75
50
25
0
WT
ABO KO
anti-A mAb
***
1C
% Cytotoxicity in Islets
100
75
50
25
0
WT
ABO KO
anti-A mAb
***

FIG. 1A-C

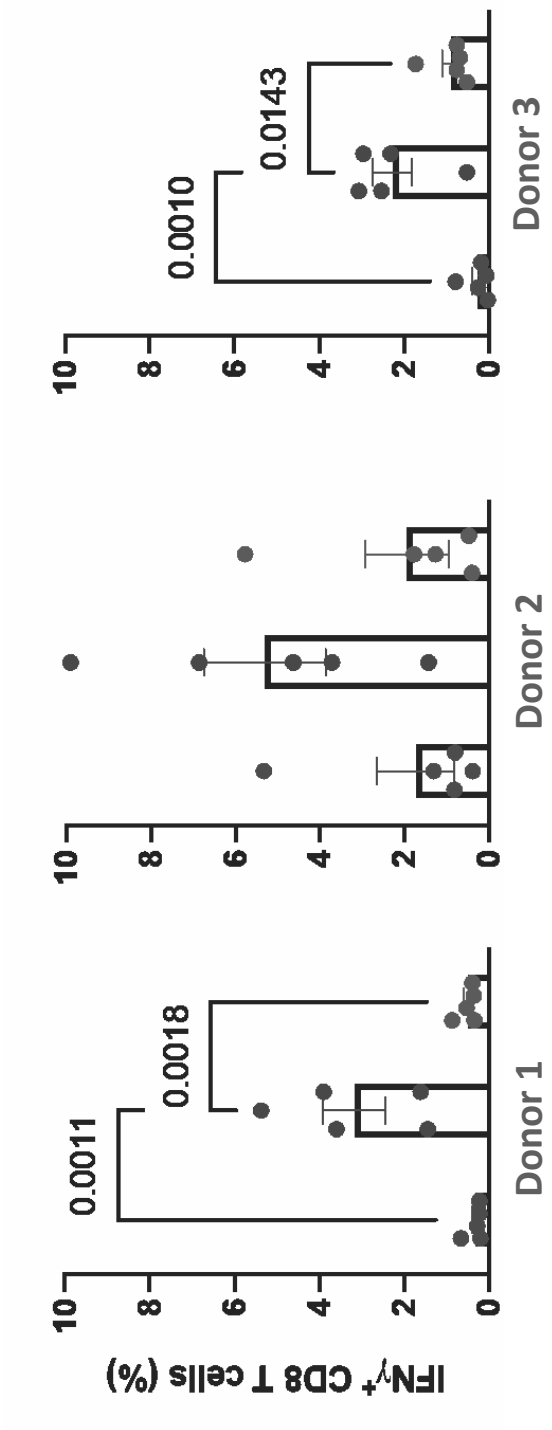
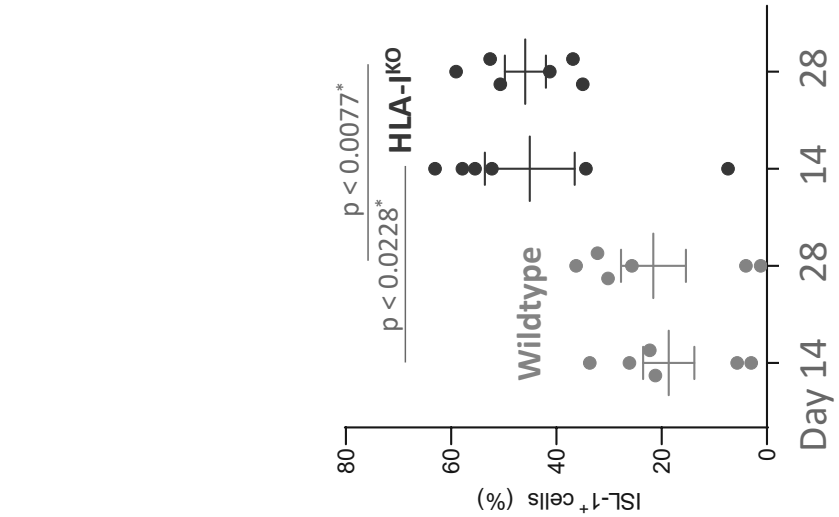

IFNγ+ CD8 T cells (%)
10
8
6
4
2
0
0.0011
0.0018
Donor 1
Donor 2
0.0010
0.0143
Donor 3

FIG. 2

3A


ISL-1+ cells (%)
80
60
40
20
0
Day 14
28
14
28
Wildtype
HLA-IKO
p < 0.0228*
p < 0.0077*

3B

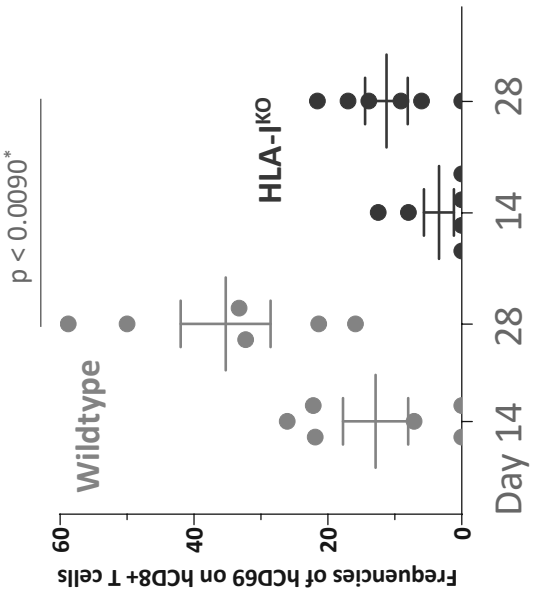
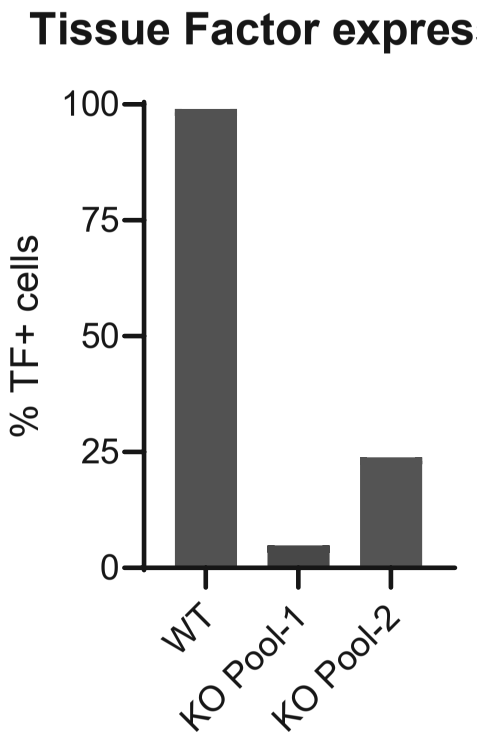

Frequencies of hCD69 on hCD8+ T cells
60
40
20
0
Day 14
28
14
28
Wildtype
HLA-IKO
p < 0.0090*

FIG. 3A-B

4A


Tissue Factor expression
% TF+ cells
100
75
50
25
0
WT
KO Pool-1
KO Pool-2

4B

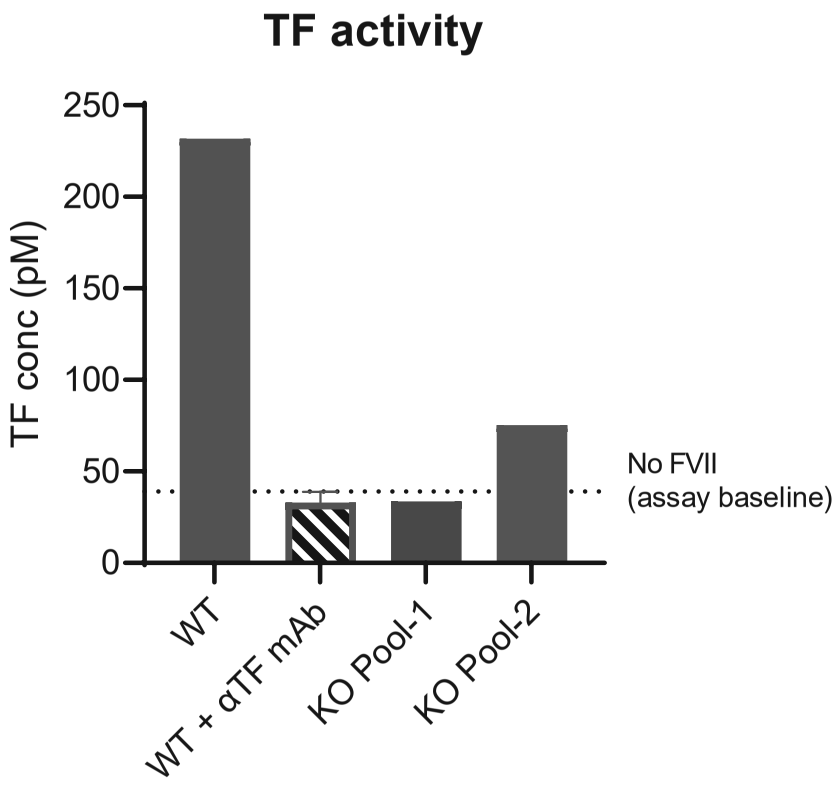

TF activity
TF conc (pM)
250
200
150
100
50
0
No FVII
(assay baseline)
WT
WT + αTF mAb
KO Pool-1
KO Pool-2

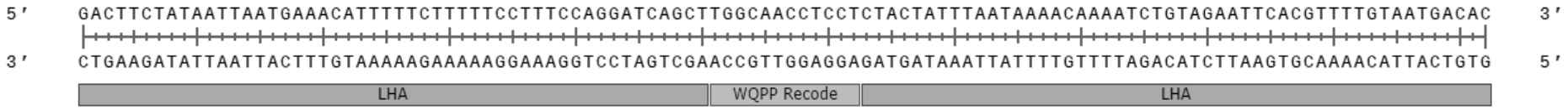
FIG. 4A-B

FIG. 5A

	Guide Sequence	Guide
(SEQ ID NO: 150)	AATAGTAGCTGAGCTGATCC	guide000002
(SEQ ID NO: 151)	TAGCTGAGCTGATCCTGGAA	guide000003

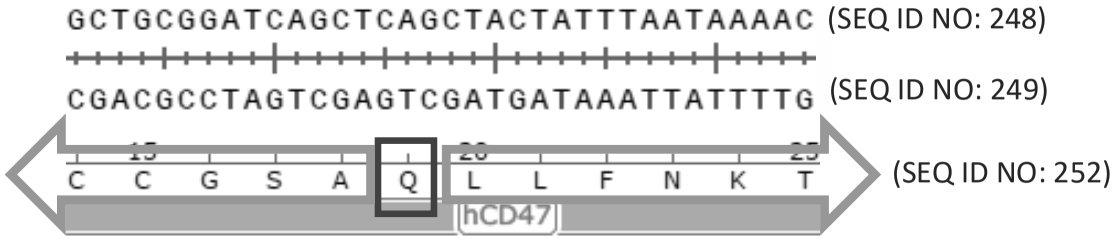
FIG. 5B

(SEQ ID NO: 246)



(SEQ ID NO: 247)

Wild Type CD47



High Affinity CD47

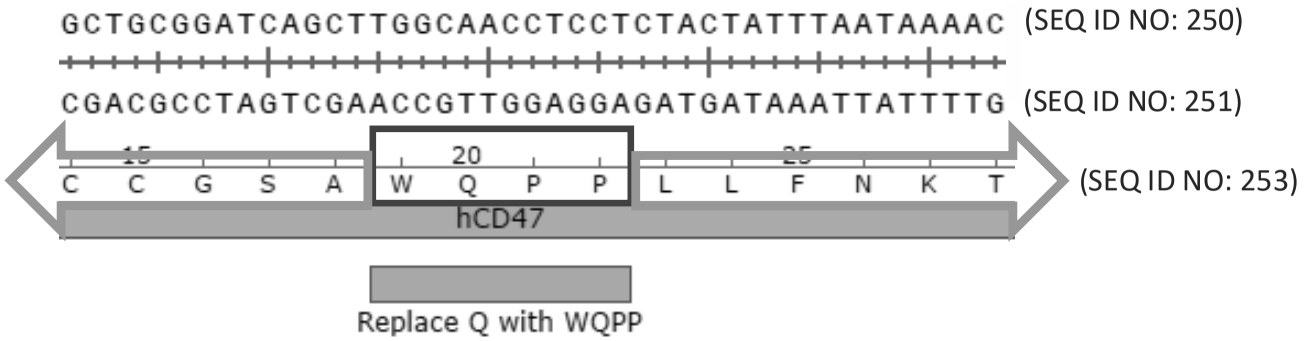


FIG. 5C

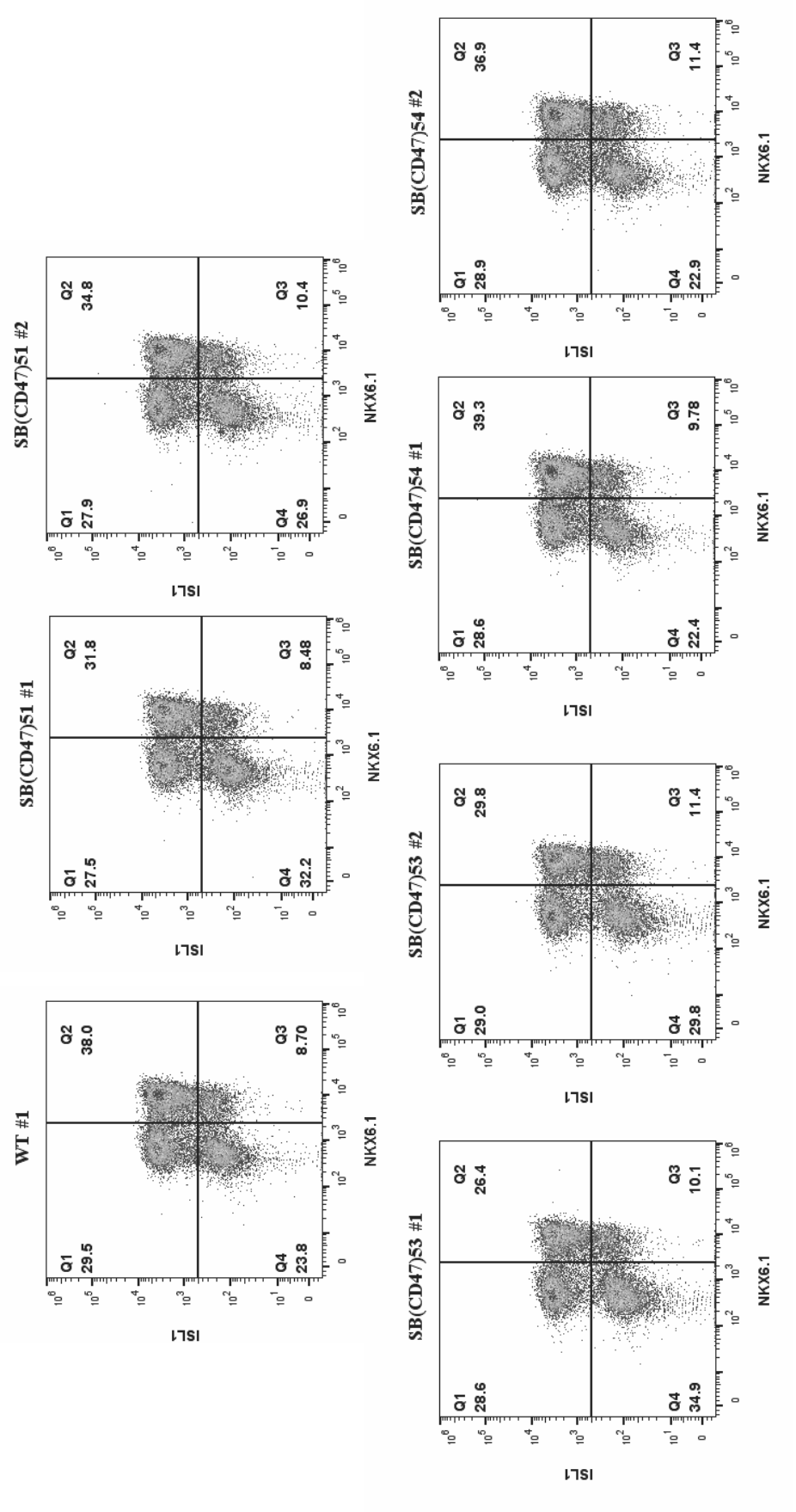

WT #1
Q1 29.5
Q2 38.0
Q4 23.8
Q3 8.70
SB(CD47)51 #1
Q1 27.5
Q2 31.8
Q4 32.2
Q3 8.48
SB(CD47)51 #2
Q1 27.9
Q2 34.8
Q4 26.9
Q3 10.4
SB(CD47)53 #1
Q1 28.6
Q2 26.4
Q4 34.9
Q3 10.1
SB(CD47)53 #2
Q1 29.0
Q2 29.8
Q4 29.8
Q3 11.4
SB(CD47)54 #1
Q1 28.6
Q2 39.3
Q4 22.4
Q3 9.78
SB(CD47)54 #2
Q1 28.9
Q2 36.9
Q4 22.9
Q3 11.4
ISL1
NKX6.1

FIG. 6

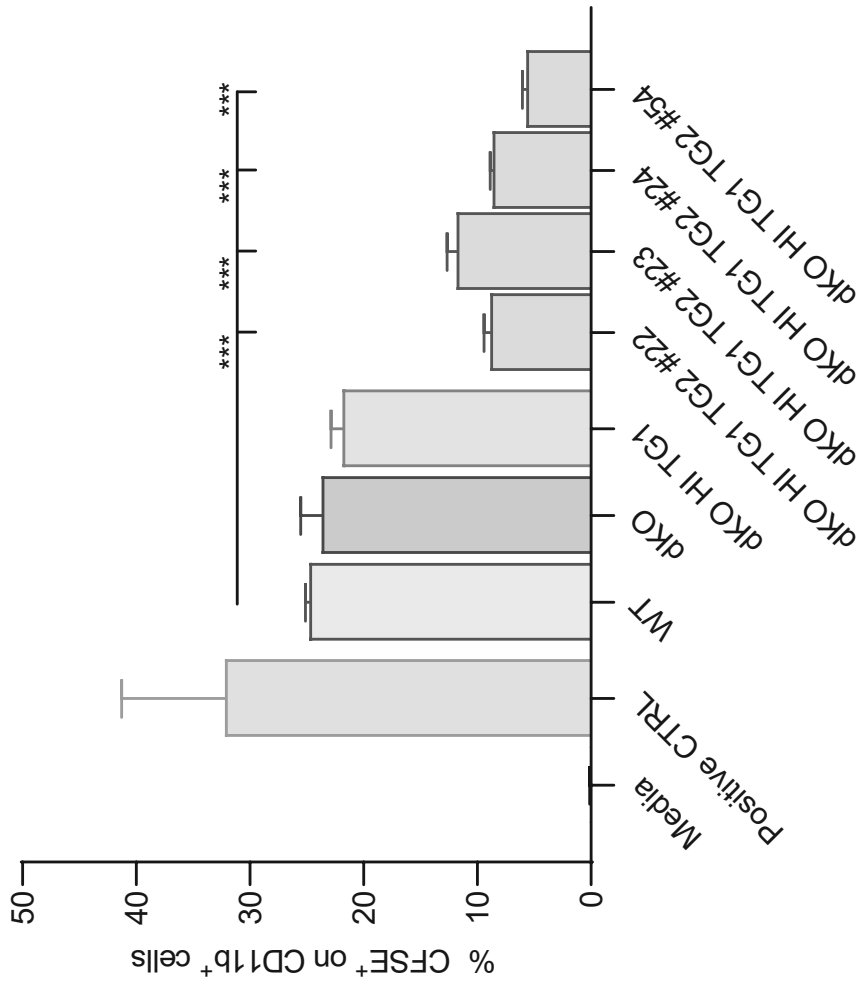

% CFSE+ on CD11b+ cells
0
10
20
30
40
50
Media
Positive CTRL
WT
dKO
dKO HI TG1
dKO HI TG1 TG2 #22
dKO HI TG1 TG2 #23
dKO HI TG1 TG2 #24
dKO HI TG1 TG2 #54
***
***
***
***

FIG. 7

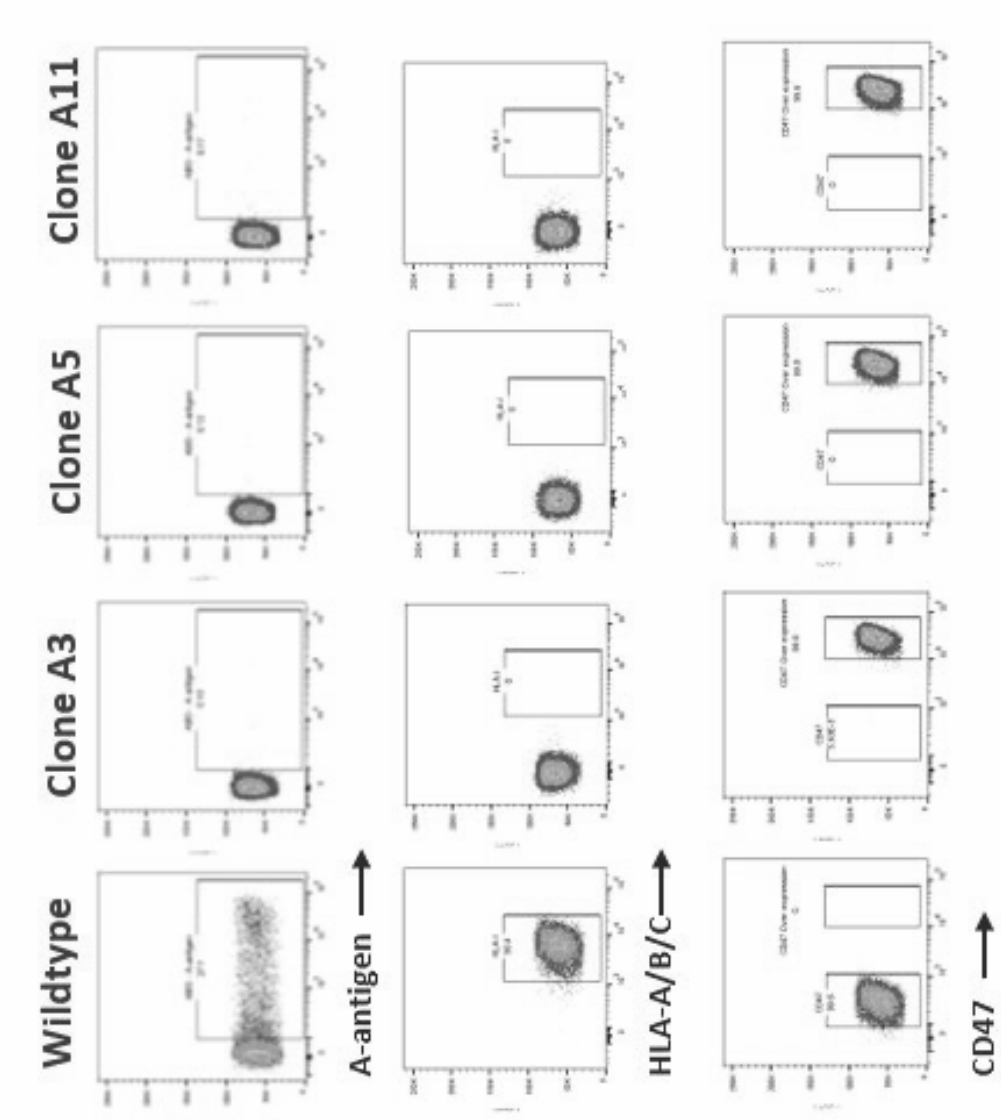


FIG. 8A

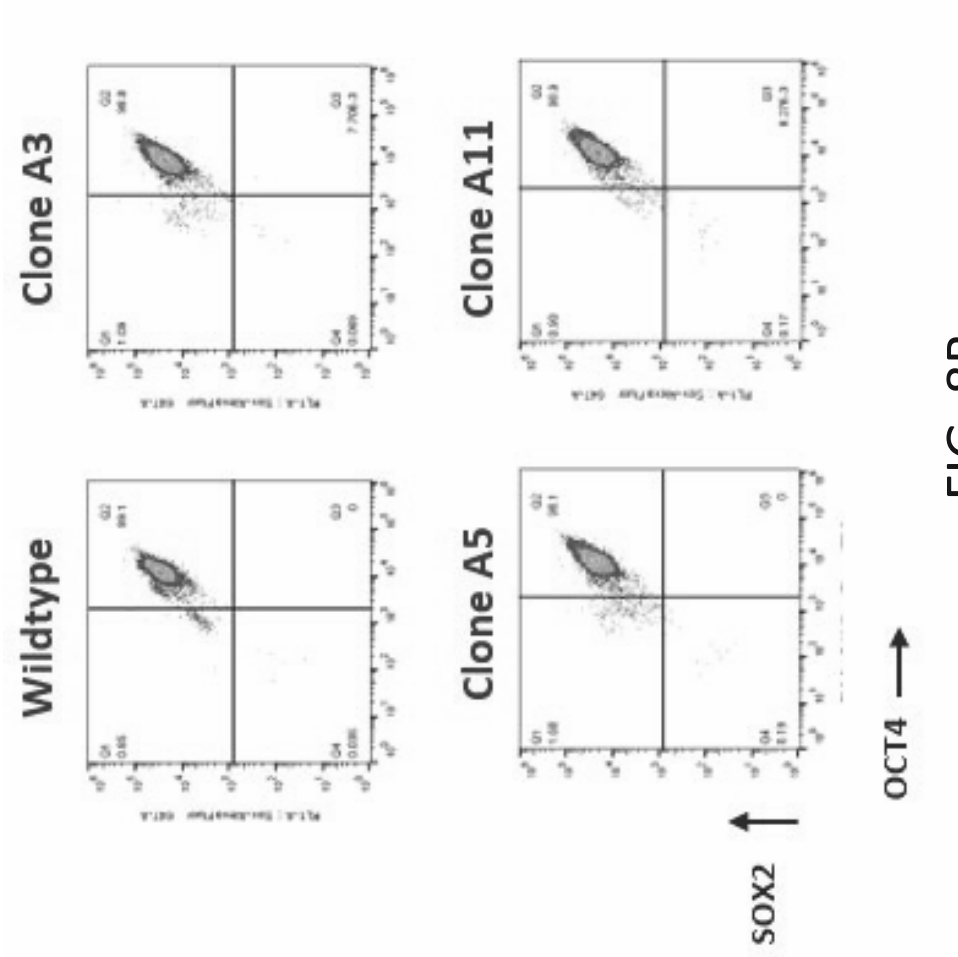


FIG. 8B

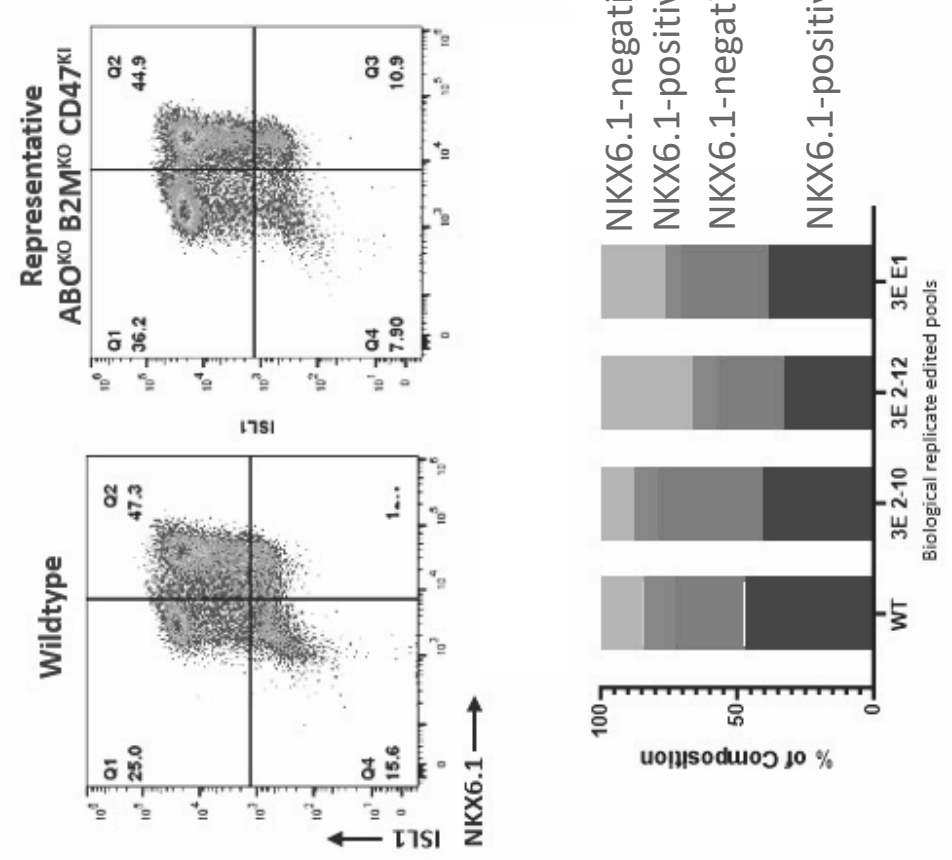

Wildtype
Q1
25.0
Q2
47.3
Q4
15.6
ISL1
NKX6.1
Representative
ABO^KO B2M^KO CD47^KI
Q1
36.2
Q2
44.9
Q4
7.90
Q3
10.9
ISL1
NKX6.1-negative; ISL1-negative
NKX6.1-positive; ISL1-negative
NKX6.1-negative; ISL1-positive
NKX6.1-positive; ISL1-positive
% of Composition
100
50
0
WT
3E 2-10
3E 2-12
3E E1
Biological replicate edited pools

FIG. 9A

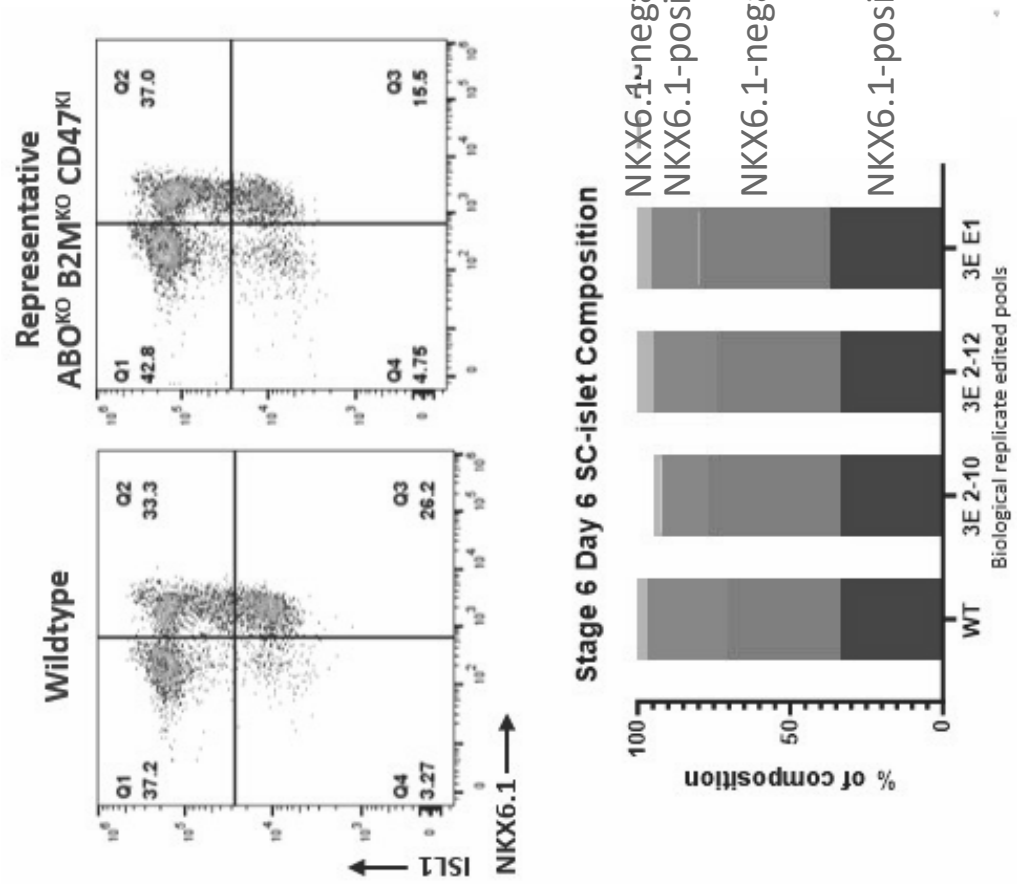

Representative
ABO^KO B2M^KO CD47^KI
Wildtype
Q1
37.2
Q2
33.3
Q3
26.2
Q4
3.27
Q1
42.8
Q2
37.0
Q3
15.5
Q4
4.75
ISL1
NKX6.1
Stage 6 Day 6 SC-islet Composition
NKX6.1-negative; ISL1-negative
NKX6.1-positive; ISL1-negative
NKX6.1-negative; ISL1-positive
NKX6.1-positive; ISL1-positive
% of composition
100
50
0
WT
3E 2-10
3E 2-12
3E E1
Biological replicate edited pools

FIG. 9B

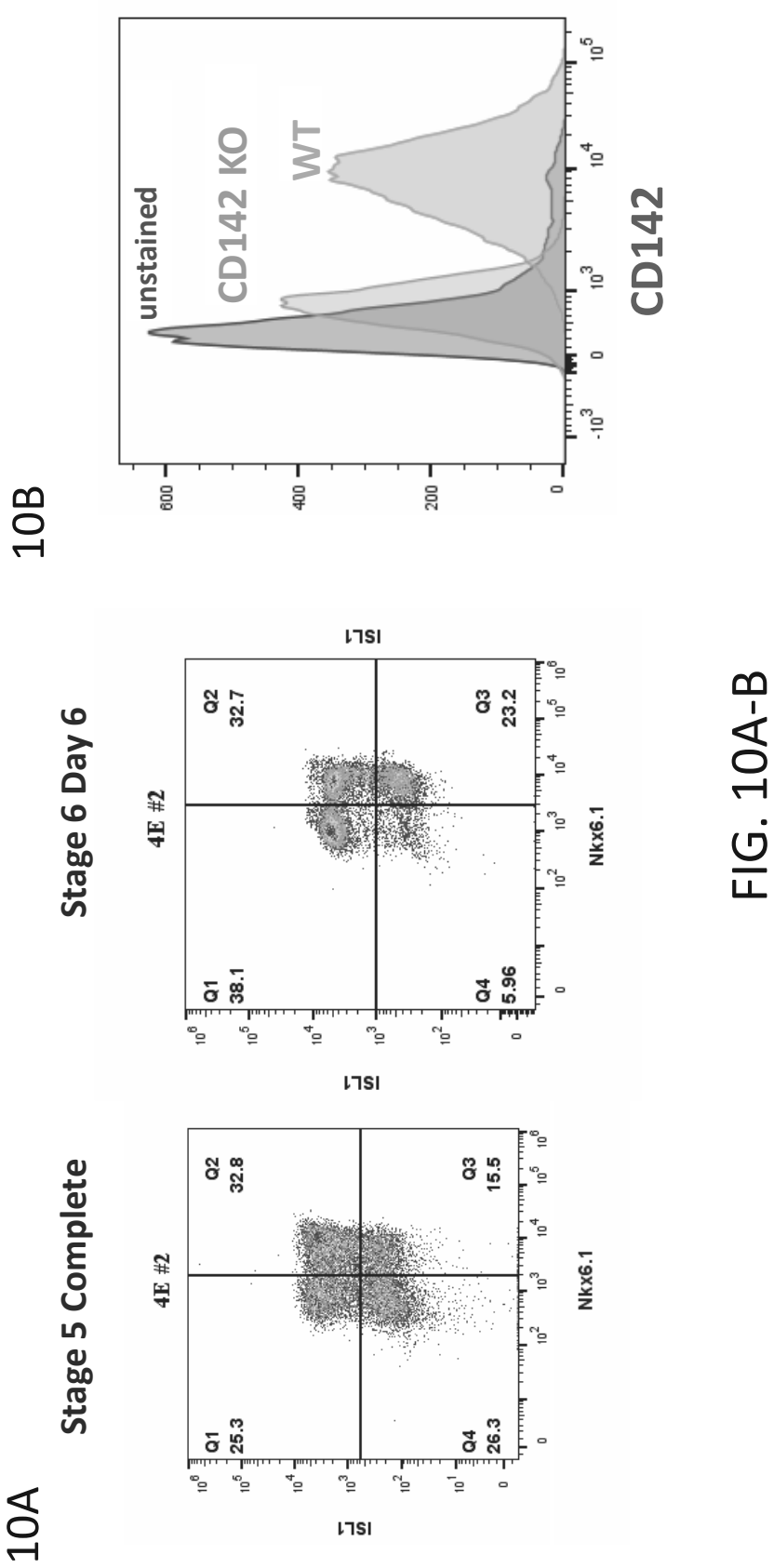

10A
Stage 5 Complete
4E #2
Q1
25.3
Q2
32.8
Q3
15.5
Q4
26.3
ISL1
Nkx6.1
Stage 6 Day 6
4E #2
Q1
38.1
Q2
32.7
Q3
23.2
Q4
5.96
ISL1
Nkx6.1
10B
unstained
CD142 KO
WT
CD142

FIG. 10A-B