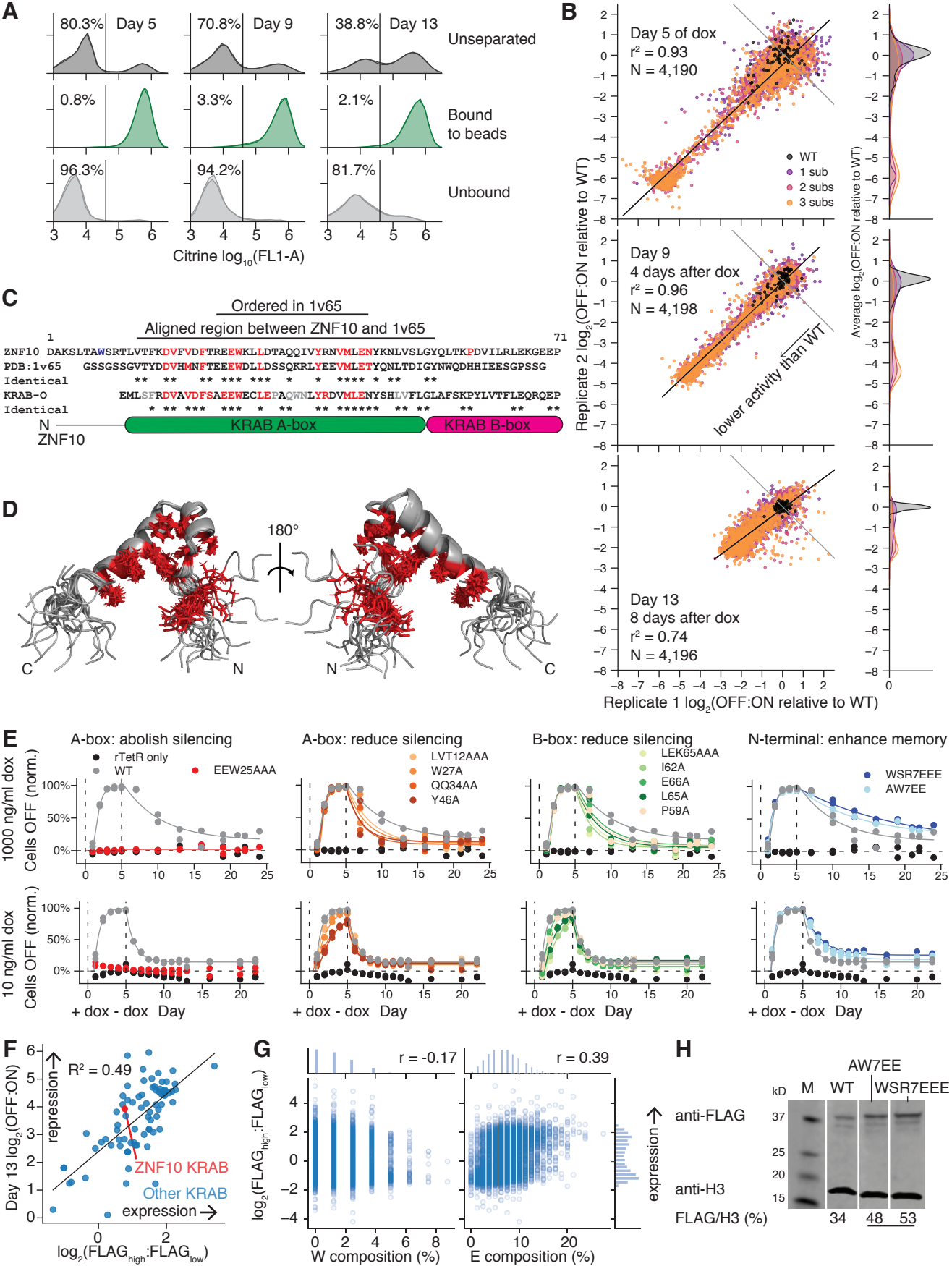
A
80.3%
Day 5
70.8%
Day 9
38.8%
Day 13
Unseparated
0.8%
3.3%
2.1%
Bound to beads
96.3%
94.2%
81.7%
Unbound
Citrine log10(FL1-A)
B
Day 5 of dox
r2 = 0.93
N = 4,190
WT
1 sub
2 subs
3 subs
Day 9
4 days after dox
r2 = 0.96
N = 4,198
lower activity than WT
Day 13
8 days after dox
r2 = 0.74
N = 4,196
Replicate 1 log2(OFF:ON relative to WT)
Replicate 2 log2(OFF:ON relative to WT)
Average log2(OFF:ON relative to WT)
C
Ordered in 1v65
Aligned region between ZNF10 and 1v65
ZNF10 DAKSLTAWSRTLVTFKDVFVDFTREEWKLLDTAQQIVYRNVMLENYKNLVSLGYQLTKPDVILRLEKGEEP
PDB:1v65 GSSGSSGVTYDDVHMNFTEEEWDLLDSSQKRLYEEVMLETYQNLTDIGYNWQDHHIEESGPSSG
Identical
KRAB-O EMLSFRDVAVDFSAEEWECLEPAQWNLYRDVMLENYSHLVFLGLAFSKPYLVTFLEQRQEP
Identical
N
ZNF10
KRAB A-box
KRAB B-box
D
180°
C
N
N
C
E
A-box: abolish silencing
rTetR only
WT
EEW25AAA
A-box: reduce silencing
LVT12AAA
W27A
QQ34AA
Y46A
B-box: reduce silencing
LEK65AAA
I62A
E66A
L65A
P59A
N-terminal: enhance memory
WSR7EEE
AW7EE
1000 ng/ml dox
10 ng/ml dox
Cells OFF (norm.)
+ dox - dox Day
F
R2 = 0.49
repression
expression
ZNF10 KRAB
Other KRAB
Day 13 log2(OFF:ON)
log2(FLAGhigh:FLAGlow)
G
r = -0.17
r = 0.39
log2(FLAGhigh:FLAGlow)
W composition (%)
E composition (%)
expression
H
AW7EE
kD
M
WT
WSR7EEE
anti-FLAG
anti-H3
37
25
20
15
FLAG/H3 (%)
34
48
53