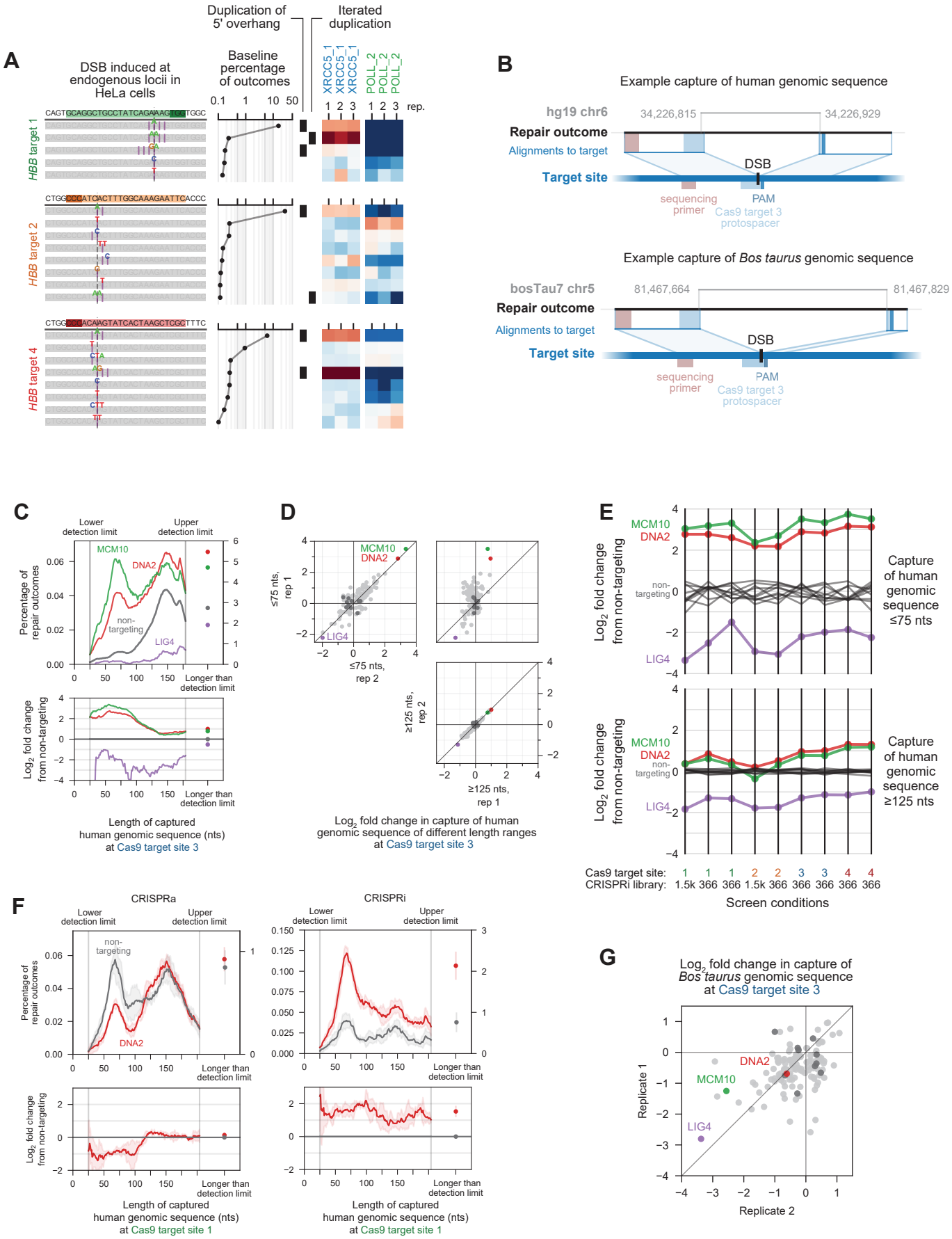
A
DSB induced at endogenous locii in HeLa cells
Baseline percentage of outcomes
Duplication of 5' overhang
Iterated duplication
XRCC5_1
XRCC5_1
XRCC5_1
POLL_2
POLL_2
POLL_2
rep.
HBB target 1
HBB target 2
HBB target 4
B
Example capture of human genomic sequence
hg19 chr6
34,226,815
34,226,929
Repair outcome
Alignments to target
Target site
DSB
sequencing primer
PAM
Cas9 target 3 protospacer
Example capture of Bos taurus genomic sequence
bosTau7 chr5
81,467,664
81,467,829
C
Lower detection limit
Upper detection limit
MCM10
DNA2
non-targeting
LIG4
Percentage of repair outcomes
Log2 fold change from non-targeting
Longer than detection limit
Length of captured human genomic sequence (nts) at Cas9 target site 3
D
≤75 nts, rep 1
≤75 nts, rep 2
≥125 nts, rep 2
≥125 nts, rep 1
Log2 fold change in capture of human genomic sequence of different length ranges at Cas9 target site 3
E
Capture of human genomic sequence ≤75 nts
Capture of human genomic sequence ≥125 nts
Cas9 target site: 1 1 1 2 2 3 3 4 4
CRISPRi library: 1.5k 366 366 1.5k 366 366 366 366 366
Screen conditions
F
CRISPRa
CRISPRi
Length of captured human genomic sequence (nts) at Cas9 target site 1
G
Log2 fold change in capture of Bos taurus genomic sequence at Cas9 target site 3
Replicate 1
Replicate 2