

Table S1. Nucleic acids used in this study. The PAM sequences are colored in blue, mismatches in red and T7 promoter sequences in green, respectively. Protospacer and spacer sequences are underlined.

DNA	
Target 1 ^a _NTS-50	TCCAGAATGGCT <u>TTC</u> CCTCCCAGTCCCTTGGCTATGGAATATGTTAATG
Target 1 ^a _TS-50	CATTAACATATTCCATAGCCAAGGGACTGGGAGG <u>GAA</u> AGCCATTCTGGGA
Target 1 ^a _NTS-100	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCCCAGTCCCTTGGCTA <u>TGGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAGCGGGAGCCTTCT</u>
Target 1 ^a _TS-100	AGAAGGCTCCCGCTTTATTTTCGAAC TTCATCAAATCAAAGTCATTAACATATTCCATAGCCAAGGGACTGGGAGG <u>GAA</u> AGCCATTCTGGACTGAGCAGA
Target 2 ^a _NTS-50	GCTGCTGTGAAGA <u>TTG</u> TGGAGAGGAATGGCTTCAGTGATAAGATTAAAGT
Target 2 ^a _TS-50	ACTTTAATCTTATCACTGAAGCCATTCTCTCCA <u>CAAT</u> CTTCACAGCAGC
Target 2 ^a _NTS-100	TAAGCCTATGGCTGAGGCTGCTGTGAAGA <u>TTG</u> TGGAGAGGAATG <u>GCTTCAGTGATAAGATTAAAGTCATTAACAAGCACTCCACTGAGGTGACAGTCGGA</u>
Target 2 ^a _TS-100	TCCGACTGTCACCTCAGTGGAGTGCTTGTTAATGACTTTAATCTTATCACTGAAGCCATTCTCTCCA <u>CAAT</u> CTTCACAGCAGCCTCAGCCATAGGCTTA
Target 1 ^a _NTS-100-mPAM	TCTGCTCAGTCCCAGAATGGCT <u>AAC</u> CCTCCCAGTCCCTTGGCTA <u>TGGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAGCGGGAGCCTTCT</u>
Target 1 ^a _TS-100-mPAM	AGAAGGCTCCCGCTTTATTTTCGAAC TTCATCAAATCAAAGTCATTAACATATTCCATAGCCAAGGGACTGGGAGG <u>GTT</u> AGCCATTCTGGACTGAGCAGA
Target 1 ^a _NTS-100-m1	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> <u>G</u> CCTCCCAGTCCCTTGGCTA <u>TGGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAGCGGGAGCCTTCT</u>
Target 1 ^a _TS-100-m1	AGAAGGCTCCCGCTTTATTTTCGAAC TTCATCAAATCAAAGTCATTAACATATTCCATAGCCAAGGGACTGGGAG <u>C</u> <u>GAA</u> AGCCATTCTGGACTGAGCAGA
Target 1 ^a _NTS-100-m3	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> <u>CC</u> <u>A</u> CCAGTCCCTTGGCTA <u>TGGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAGCGGGAGCCTTCT</u>

Target 1 ^a _TS-100-m3	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGACTGGG <u>TGG</u> GAAAGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m5	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTC <u>G</u> CAGTCCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m5	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGACTG <u>C</u> GAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m7	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>C</u> TGTCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m7	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGAC <u>A</u> GGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m9	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>C</u> AG <u>A</u> CCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m9	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGG <u>T</u> CTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m11	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>C</u> AGT <u>C</u> GCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m11	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAG <u>C</u> GACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m13	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>C</u> AGTCC <u>C</u> A <u>T</u> GGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m13	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCA <u>T</u> GGGACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m15	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>C</u> AGTCCCTT <u>C</u> GCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m15	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGC <u>G</u> AAGGGACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m17	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>C</u> AGTCCCTTGG <u>G</u> TA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT

Target 1 ^a _TS- 100-m17	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATA <u>CCAAGGGACTGGGAGG</u> GAAAGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m19	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCCAGTCCCTTGGCT <u>T</u> <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS- 100-m19	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCA <u>A</u> AGCCAAGGGACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m1m2	TCTGCTCAGTCCCAGAATGGCT <u>TTCGGT</u> CCAGTCCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS- 100-m1m2	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGACTGGGA <u>CCGAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m3m4	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCAGCCAGTCCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS- 100-m3m4	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGACTGG <u>CTGG</u> GAAAGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m5m6	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTC <u>GG</u> AGTCCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS- 100-m5m6	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGACT <u>CCGAGG</u> GAAAGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m7m8	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCC <u>TCT</u> CCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS- 100-m7m8	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGGGAGAGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m9m10	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCCAGAGCCTTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS- 100-m9m10	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAAGG <u>CTCT</u> GGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS- 100-m11m12	TCTGCTCAGTCCCAGAATGGCT <u>TTC</u> CCTCCAGT <u>CGG</u> TTGGCTA <u>T</u> GGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT

Target 1 ^a _TS-100-m11m12	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCCAA <u>CCGACTGGGAGG</u> GAAAGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m13m14	TCTGCTCAGTCCCAGAATGGCT <u>TTCCCTCCCAGTCCC</u> AAGGCTA TGGAAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m13m14	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAGCC <u>TTGGGACTGGGAGG</u> GAAAGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m15m16	TCTGCTCAGTCCCAGAATGGCT <u>TTCCCTCCCAGTCCCTT</u> CCCTA TGGAAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m15m16	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCATAG <u>GG</u> AAGGGACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m17m18	TCTGCTCAGTCCCAGAATGGCT <u>TTCCCTCCCAGTCCCTT</u> GGGAA TGGAAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m17m18	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCCAT <u>TCC</u> CAAGGGACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
Target 1 ^a _NTS-100-m19m20	TCTGCTCAGTCCCAGAATGGCT <u>TTCCCTCCCAGTCCCTT</u> GGCTT AGGAATATGTTAATGACTTTGATTTGATGAAGTTCGAAATAAAG CGGGAGCCTTCT
Target 1 ^a _TS-100-m19m20	AGAAGGCTCCCGCTTTATTTTCGAACTTCATCAAATCAAAGTCAT TAACATATTCC <u>TA</u> AGCCAAGGGACTGGGAGG <u>GAA</u> AGCCATTCTG GGACTGAGCAGA
CaMV_NTS-100	TCAACTTCTTCTGCTTCTTGGATAAGTCGCAGATTTTAGATAGT TCTTCTTT <u>TTACT</u> ATCTTCGCCGCGAAACCTAAGCTGTAGATGCT GGTTCGTTAGC
HPV16 site 1 ^b _NTS-100	<u>CGCCAGGGTTTTCCAGT</u> CACGACTTTGGTGCTATGGACT <u>TTAC</u> TACATTACAGGCTAACAAAAGTGAAGTTCCAC <u>TCCTGTGTGAAA</u> <u>TTGTTATCCGCT</u>
HPV18 site 1 ^b _NTS-100	<u>CGCCAGGGTTTTCCAGT</u> CACGACTATGGTGCCATGGACT <u>TTAG</u> TACATTGCAAGATACTAAATGTGAGGTACCAT <u>TCCTGTGTGAAA</u> <u>TTGTTATCCGCT</u>
HPV16 site 2 ^b _NTS-100	GTCGTAGGTA CTCTTAAAGTTAGTATTTTTATATGTAGT <u>TTCT</u> <u>GAAGTAGATATGGCAGCACATAATGACATATTTG</u> ACTGCGTGT AGTATCAACAAC
HPV18 site 2 ^b _NTS-100	TACTGTGGTAGATACCACTCCCAGTACCAAT <u>TTAACA</u> ATATGTG <u>CTTCTACACAGTCTCCTGTACCTGGGCAATATGATGCTACCAA</u> TTTAAGCAGTAT

off-B101_NTS-100	CAGCGAGGTGGATTACCTGGTGTGCGTGGACGTGGACATGGAGT TC <u>CGCGACCAC</u> GTGGGCGTGGAGATCCTGACTCCGCTGTTCGGC ACCCTGCACCCC
on-B101_NTS-100	CAGCGAGGTGGATTACCTGGTGTGCGTGGACGTGGACATGGAGT TC <u>CGCGACCAT</u> GTGGGCGTGGAGATCCTGACTCCGCTGTTCGGC ACCCTGCACCCC
Off-001_NTS-100	GCAAACCTCACGTGGCGGCGCTTTGTGCTTGCAGGATGGTCTACC CCCAGCCAAAGGTGCTGACACCGTGGTGAGTAAAGTTACTGACA CTGAAACTGAAC
ON-001_NTS-100	GCAAACCTCACGTGGCGGCGCTTTGCGCTTGCAGGATGGTCTACC CCCAGCCAAAGGTGCTGACACCGTGGTGAGTAAAGTTACTGACA CTGAAACTGAAC
Off-002/03_NTS-100	G TTCAGTTTCAGTGT CAGTAACTTTACTCACCACGGTGT CAGCA CCTTTGGCTGGGGGTAGACCATCCTGCAAGCACAAAGCGCCGCC ACGTGAGTTTGC
ON-002/03_NTS-100	G TTCAGTTTCAGTGT CAGTAACTTTACTCACCACGGTGT CAGCA CCTTTGACTGGGGGTAGACCATCCTGCAAGCACAAAGCGCCGCC ACGTGAGTTTGC
BRCA1_3232WT_NTS-100	GTACAGTGAGCACAATTAGCCGTAATAACATTAGAGAAAATGTT TTTAAGAGCCAGCTCAAGCAATATTAATGAAGTAGGTTCCAG TACTAATGAAGT
BRCA1_3232A>G_NTS-100	GTACAGTGAGCACAATTAGCCGTAATAACATTAGAGAAAATGTT TTTAAGGAGCCAGCTCAAGCAATATTAATGAAGTAGGTTCCAG TACTAATGAAGT
BRCA1_3537WT_NTS-100	CAGATTTCTCTCCATATCTGATTT CAGATAACTTAGAACAGCCT ATGGGAAGTAGTCATGCATCTCAGGTTTGTCTGAGACACCTGA TGACCTGTTAGA
BRCA1_3537A>G_NTS-100	CAGATTTCTCTCCATATCTGATTT CAGATAACTTAGAACAGCCT ATGGGAAGTGGTCATGCATCTCAGGTTTGTCTGAGACACCTGA TGACCTGTTAGA
TP53_856WT_NTS	CTTTGAGGTGCGTGTTTGTGCCTGTCCTGGGAGAGACCGGCGCA CAGAGGAAGAGAATCTCCGCAAGAAAGGGGAGCCTCACCACGAG CTGCCCCAGG
TP53_856G>A_NTS	CTTTGAGGTGCGTGTTTGTGCCTGTCCTGGGAGAGACCGGCGCA CAGAGAAAGAGAATCTCCGCAAGAAAGGGGAGCCTCACCACGAG CTGCCCCAGG
dsActivator 1 ^b _NTS	CGCCAGGGTTTTCCAGTCACGACTTTAGACCAGGATGGGCACC ACCCTCCTGTGTGAAATTGTTATCCGCT
dsActivator 2 ^b _NTS	CGCCAGGGTTTTCCAGTCACGACTTTAGATCGTTACGCTAACT ATGATCCTGTGTGAAATTGTTATCCGCT
dsActivator 3 ^c _NTS-100	CGCCAGGGTTTTCCAGTCACGACGTACCCGGGGATCCTTTAGA GAAGTCATTTAATAAGGCCACTGTTAAAAAGCTCCTGTGTGAA TTGTTATCCGCT

DNMT1 site 1 ^d _NTS-100	CGCCAGGGTTTTCCAGTCACGACCCCTGGGGCCGTTTCCTCA CTCCTGCTCGGTGAATTTGGCTCAGCAGGCACTCCTGTGTGAAA TTGTTATCCGCT
DNMT1 site 2 ^d _NTS-100	CGCCAGGGTTTTCCAGTCACGACTCTGGGGACCGTTTGAGGAG TGTTTCAGTCTCCGTGAACGTTCCCTTAGCACTTCCTGTGTGAAA TTGTTATCCGCT
DNMT1 site 3 ^d _NTS-100	CGCCAGGGTTTTCCAGTCACGACATCAGTACGTTAATGTTTC TGATGGTCCATGTCTGTTACTCGCCTGTCAAGTCCTGTGTGAAA TTGTTATCCGCT
DNMT1 site 4 ^d _NTS-100	CGCCAGGGTTTTCCAGTCACGACTGACTTTTCCTTTTATTTC CTTCAGCTAAAATAAAGGAGGAGGAAGCTGCTTCCTGTGTGAAA TTGTTATCCGCT
EMX2 site 1 ^d _NTS-100	CGCCAGGGTTTTCCAGTCACGACGCCGTTTGTACTTTGTCCTC CGGTTCTGGAACCACACCTTCACCTGGGCCAGTCCTGTGTGAAA TTGTTATCCGCT
HERC2>A ^c _NTS- 100	CGCCAGGGTTTTCCAGTCACGACAGAGGCGAGGCCAGTTTCAT TTGAGCATTAAATGTCAAGTTCTGCACGCTATTCCTGTGTGAAA TTGTTATCCGCT
HERC2>G ^c _NTS- 100	CGCCAGGGTTTTCCAGTCACGACAGAGGCGAGGCCAGTTTCAT TTGAGCATTAAAGTGTCAAGTTCTGCACGCTATTCCTGTGTGAAA TTGTTATCCGCT
BRCA1_3232- sgPOT-1	CTGCTCCCCTCATGGCCCCACTTGCTCCTTCTGGACCACTTGAA GGAACCAGCTCATGCTATTTTTTCATTCCCACCTTTATGTCATCT TAGAAACATAGT
BRCA1_3232- sgPOT-2	ATCATGGGAAGTGCAGGAAGAGGTTCCCAGTAGAGGATCTTCAA GGAGCCTGCACAAGCAACCAATGAAACAAAGAGCTAGTAATTGT GCATCTGACATT
BRCA1_3232- sgPOT-3	GATTTTTATGGAGGTTGACTTTGTGTGTGCATTGGAGTTTTGAA GGTGCCATCTCAGGCAATTCACCCCCGAGGAGGGAAACATGGTT CTCAGTGCAGCT
BRCA1_3232- sgPOT-4	GTCTGTCTATAGGGGTTGGGGGAGAAAGAAAGAATTTATTTTAA GGAATCAGCTCATGCAATAGTGGGGACTTGCAAGTCCGAAATCC ATAGGCTGGTAT
BRCA1_3232- sgPOT-5	AAGATAACAATGCCCATGAGTGTGGCAGGGTTCAGACTGTTTAA GGAGCAAGCTCAAAGAATCTTCCCTCACTGGGTGGGGGCCGAGGA GAATGGCAACCA
BRCA1_3232- sgPOT-6/tgPOT-3	TATTCACCTCATGTAGGTGCTGAATTTAATTGAGTTAGATTCTA GGAGAAAGCTCAAGCAATGCCTAACCAAGGAAGCCGTGGATTCC CATTTCAGAGCCA
BRCA1_3232- sgPOT-7	AAGAATTTTCAGCTGAATAACAACAAAAAAGTATTAGAAATTGAA GGAGTCAGCTAAAGCAGTACTTAGAGAAAAATTTATAGCTTTAA GTATTTATACTA

BRCA1_3232- sgPOT-8	TTACAGATGCTTCCTCAGCAACGGAAAGCCATAGCTAAGTTCAA GGAGCCAGCCCACGCATTAGCATTTTCAGCAGAAATTCACAGGT GACCAGTGTGTT
BRCA1_3232- sgPOT-9/tgPOT-4	CTCACAAAGATTACAAACCACAAAAGGAAATAAAGCTTTTTGAA GGAGTCAGCTAAAGCAATGGAGGAATGTATACCCCAAACTGAA CATAGCAATCTC
BRCA1_3232- sgPOT-10/tgPOT- 5	ATTTTGAAGTGAATGAAAATGAAAACGCCAGATCAAATTTGTA GGAGACAGCTAAAGCAATGCTTGAGGAAATGTTCTGGCATTAAA TGTTTTTTATAA
BRCA1_3232- sgPOT-11	ACCCTGACTGATACAGATAACCTAGCCCAAGAGTCTGGATTCAA TGTGCCAGCTCAAGCAGTTCTTAATGATTCTAACAGTTGCTCCA CTATTAAACTAT
BRCA1_3232- sgPOT-12	GCACCATATGGAAGTTATCAAGGCTTATAGCTTGCTTTCTTCAA GGAGGCAGCTCAAGCTGTACCTGGACCCCTTGAACCACAGCTG AACAGCTGGGAT
BRCA1_3232- sgPOT-13/tgPOT- 6	GCAGCCGGGTTCTGCCCTCGTTCGGGGAAGTCTGCCAGGTTTCA GGAGCCAGCTCAGGCACTTCGCCCCCTCCTCAGAGGCTGCCTCT TGAGCCTTCAGT
BRCA1_3232- sgPOT-14	CATATCATTGCTGAGTATTCCTTTGGAGATTCCTTCAATTGAA GAAGCCACCTCATGCAATGTCATGTCTTATTCTCAAGAGCAGCT CATGTCCAGTGA
BRCA1_3232- sgPOT-15	TTCTAGTTGTTTTCTCTTTTGGAAATACATTAATGCTTCTTCAA GGAGCCAGGCAAAGCAATCAGATCACTCACTGTAATCCTTATGA GGAAGTGTATAT
BRCA1_3232- sgPOT-16	AATATGCTGGAGATTTATGGGGACTATCTATGATTGTGGTTCAG GGAGCCTGCTCAAGCAAACATAAATCTTGGTAAAAGAGTCAGTC AAGCCATATAAA
BRCA1_3232- sgPOT-17	ATGTCACAAACGTTGTGCAGTCCCTATGAGTTTCCCACATTGAA TGAGCCAGCTTAAACAATATAAGCCTAAACTTCAAAGCTTGATA AATACCCTTCGG
BRCA1_3232- sgPOT-18	ACAATTGTTATAGGGAAGGCAAAATTCACCTCCATTCAATTTAG GGATCCAGCTCAAGAAATAAATTTACATAAGATAGATTAATAAG AATAAGAGCATA
BRCA1_3232- sgPOT-19	GACCTAGCTCCTAGGATGCTTGAGGCTGAAGGAATGGTGTTTAA GGAGAAATCTCAAGCAATGCCAAGTTCCAGTCAGGTAGAATTAG AGTAGCTGAAAC
BRCA1_3232- sgPOT-20	CTTAGGAAGCTCCAAGTTATAGAACCCTTCTCAAGGGGTGTTAAA GGAGCCATCTGAAACAATAGGATGCTTCCTTAAGACAGGAGCCA AGATCTTGGTAT
BRCA1_3232- tgPOT-1	GAAAGGTAAATGCTAGGAACAGGTGGCATCACCAGATACTTTTA GGAGCCAGCTCACGTGATGTCTTGGCCTTTATGTTATAGGTAGG TAAACAAACTAT

BRCA1_3232- tgPOT-2	CTTTTAGATAAAATGGAAATGAAGACAAACATACCAAATCTTATA GGATGCAGCTTAAGCAATGTCTATGAGAATTTTTTTTTTAATTTT ATTATTATTATA
BRCA1_3232- tgPOT-7	TTTGGAGCAAGTACCAAATGCCAAGCACTGTATTATGCATTCTA GAAGCCATCTCATGCAATCCTCACAAAACCTCAAAAAGGTGGTG TTTTACAGATGA
BRCA1_3232- tgPOT-8	ATGATTGCCCGCCAAGATTTTCCTTTTTTTTTTTTTTTTTTTTTT GGTACCAGCTCAAGCAATTCTCCTGCCTCAGCCTCCCAAGTAGC TGAGATTACAGG
BRCA1_3232- tgPOT-9	TGCGTTGGGCAAACACAAAGATGCTATTTGTAAAGCAAATTTTC AGAGCCAGCTCAAGAAATGGAAAATACTCACCTAACTCGTGAGG TGCTGTGATAA
BRCA1_3232- tgPOT-10	AAAGCCTGGGAGTGATTAACAACCACTGCATAGCAAACCTTTTA GGAGTCAGCTAAAGCACTATGGACAGGGAAATTTGTGGACTTAAA AGCTCCTGTAAG
BRCA1_3232- tgPOT-11	GAAAATTTCTGAAATGAATTTAAATGAGAATATCAAATTTGTA GGATACAGCTAAAGCAATATTTTCAGAGAGAAATTCATAGTATTA TATTAGTATTCA
BRCA1_3232- tgPOT-12	GCTGCAGAGCCGGTGGTTTTCTATCACTACAGGTGGGGTTTTTA GGAGCCACCTCCAGCAAGAAGCCACAAACCGGGCGTCCTTACCT GACGCGGATGCA
BRCA1_3232- tgPOT-13	CCTTTCAAAGAGTGCAATTTGCTATCACAAATGGTGCTTCTTTTA GGACACAGCCCAAGCAATATTGCCTGCTTATTACCCCAAATGAA ACATGAAGAATC
BRCA1_3232- tgPOT-14	AATATTTTGAAGTGAATGAAAATGAAAAACTTCGAAATTTGTG GGATGCAGCTCAAGCAATGCTTACAGGAAACCGACAGCATTAAA TGCTTATATTAG
BRCA1_3232- tgPOT-15	AAATTATTTTAACTGAATGATAATGAAAACATCAAATTTGTA GGATGCAGCTAAAGCAATGTTAGAGGAAATATATAGCCTTATAT GTATATTTTAGA
BRCA1_3232- tgPOT-16	TTTTGAATTAATAAAAATGATACACAGCTTATCAAAGTTGTA GGATGCAGCTAAAGCAATACTTAGAGGGAATTTATAGTTTGAAA TGCTTATTTAGA
BRCA1_3232- tgPOT-17	TTTTGTTTGAGTGATAATAAATATATTGTATGTCACAACCTGTG GGAGGCAGCTCAAACAATACTTAGAAGAAAAATATATAGTGTAA ATGCATATATTC
BRCA1_3232- tgPOT-18	TCTCTCTCTTTCTTTCCAAGAGCCAATTTCTACCTATATTTTA GGATCCAGCTCAAGCATCACCTCCTCCACAAAGCTTTTTCTAAC CCCCTCATCAGC
BRCA1_3232- tgPOT-19	GGTTAGCTGGATTTGTCCGTATTGCAGATGAGAGGGAGTTTTTA GGACCCAGTTCCAGCAATTTTTCCTCCTCTGCACAGGTGCCATG CATCACCTTTTC

BRCA1_3232-tgPOT-20	TAATGCATAACTTCATTTAAAAAGTTTTGAAAATATAGTTTCTT GGAGCTAGCTCAAGCATTAAATTGCACAGATTGTTAAAATAGTCT GTATGCTATGGA
BRCA1_3232-tgPOT-21	CATTTTGTCTGAATAAAAAGAAGACTACATATCAAATTTGTA GGATGCAGCTAAAGCAATGCTTAGAGGGGAATTTATAGTTTAA ACACATGTTAAA
BRCA1_3232-tgPOT-22	TCGAACATAACCAAGAGTAGAGAGAACCATAACAATAAACTTTTG TGAGCCAGCTCCAGCAATTATCCATGTTGCCATCCTGTTTCATG TATCCCTCCCCT
BRCA1_3232-tgPOT-23	TATATTGAACTGAAAGAAAAGGAAAATACAACATAACATTTATA GGATACAGCTAAAGCAATGTGGCAAGAGAAAATTTACAGCACCAA ATGCTTAGATCA
TP53_856-sgPOT-1/tgPOT-1	AAAGTTATTTGGAATATTTCTGCTCGACAGGTCCAATATTTTTC TTCTCTGTGTGCCGGTCATAAGGAAATCTTCAGGACGCCAGTG ATGCCAGCTAAA
TP53_856-sgPOT-2	GAGGAGTTTGACTTTAGCATTAGCACATGAGCAAGCGTATTCTC TTTCTCTGTGCATCTGTCTAATAAAACAATAGGAATATAGCACA AGTAAACTCTAT
TP53_856-sgPOT-3	TGGCTCCCCTCTGTCCATCTGCAAGACAGACAGCTCTGGTTCTC TTTCTCTGGGCGCCAGTGCACCCCCAAGCCATGTCAAGCTGAGC CCAGGAGTGCCT
TP53_856-sgPOT-4/tgPOT-4	GCACCTCCACGGCACTCCCAACTTTTTGTCCCCAGACGTTTGC CTTCTCTGTGCGCTGGTCAGACGGCAGCGACACCTTCGTGCGCA GGAGTTGGGACG
TP53_856-sgPOT-5	TGGAACTTGCCAACAGATTTTTGCTTTTTGTATCTGCCCTTCTC TTTCTCTGTCTGCTGGTCTTTCCCTGCCTCTGCCAGCTGCCAT GCTGCTATTTTC
TP53_856-sgPOT-6	CAGCCAAAACAGCAGTTCATTTGGGCATGTTTTCAATTTTCTA TTTCTCTGGGCACCGGTCCCCATGGCCAGGTCAAGCTGTTCAAC GCTCACACCAGC
TP53_856-sgPOT-7	GTTTATTTCTGGGTTTTATATTTGATTCTACTGATCTACTTGTC TTTCTCTGTGCCACGGCCTCACTATTCTAATTTTAATTGCTTTA TTATAAGTCTTA
TP53_856-sgPOT-8	ATCTTAGGACTCACAGTCTCCGGGCCTTTCTCTTCATCATTCTC TTTCTCTGTGCTCCCCTCTGTCTGGGTTTCAATCTCAGAACGAT TACTTGTTTTCT
TP53_856-sgPOT-9	GAACTCCACATGAGATCACAGGTGCAGGATTAGGGAAGCTTCTC TTTTTCTGGGCCCCGGTCCATGCTAGCGGGTTTCAGTCACTTG TCAATGGGTCCA
TP53_856-sgPOT-10	GAACTCCACATGAGACCACAGGTGCAGGATTAGGGAAGCTTCTC TTTTTCTGGGCCCCGGTCCATGCTAGCAGGGTTTCAGTCACTTG TCAATGGGTCCA

TP53_856-tgPOT-2	CTGTAGAGA ACTAATGTAGTCTACACTGTACACTTGATGTT CAG TTTCTCTGTGCAGCGGTC ACTTGTGAATTTTCAGGAGCCTTGCA CAGTGAAGTAAC
TP53_856-tgPOT-3	CAACCCAACAGATTAGTTTGAAAACAATGTACGCCTATGTTTAC TTTCTCTGTCCGCCTCTCCCTCAGGACCAGGTGCCTAGCTGACT TAGCACATTCTC
T7-AasgRNA-M13mp18	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCAGC <u>ATCGTTACGCTAACTATGA</u>
T7-AasgRNA-Target 1	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCCTCCAGTCCCTTGGCTAT
T7-AasgRNA-Target 2	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTGGAGAGGAATGGCTTCAGT
T7-AasgRNA-HPV16_site_1	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCTACATTACAGGCTAACAAA
T7-AasgRNA-HPV18_site_1	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGTACATTGCAAGATACTAAA
T7-AasgRNA-HPV16_site_2	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTGAAGTAGATATGGCAGCAC
T7-AasgRNA-HPV18_site_2	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACACAATATGTGCTTCTACACA
T7-AasgRNA-CaMV	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCTATCTTCGCCGCGAAACCT
T7-AasgRNA-B101	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCCGCGACCATGTGGGCGTGGA
T7-AatgRNA-B101	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCCGCGACCATATGGGCGTGGA
T7-AasgRNA-001	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCGCTTGCAGGATGGTCTACC
T7-AatgRNA-001	<u>TAATACGACTCACTATAGGG</u> GTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCACTTGCAGGATGGTCTACC

T7-AasgRNA-002/03	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACACTGGGGGTAGACCATCCTG
T7-AatgRNA-002/03	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAATGGGGGTAGACCATCCTG
T7-AasgRNA-BRCA1_3232	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAAGGAGCCAGCTCAAGCAAT
T7-AatgRNA-BRCA1_3232-1	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTAGGAGCCAGCTCAAGCAAT
T7-AatgRNA-BRCA1_3232-2	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAAGGACCCAGCTCAAGCAAT
T7-AatgRNA-BRCA1_3232-3	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAAGGAGCCAGGTCAAGCAAT
T7-AatgRNA-BRCA1_3232-4	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAAGGAGCCAGCTCAACCAAT
T7-AasgRNA-BRCA1_3537	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGAACAGCCTATGGGAAGTGG
T7-AatgRNA-BRCA1_3537-1	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGAACAGCCTATGGGAAGTGG
T7-AatgRNA-BRCA1_3537-2	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCACAGCCTATGGGAAGTGG
T7-AatgRNA-BRCA1_3537-3	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGAACACCCTATGGGAAGTGG
T7-AatgRNA-BRCA1_3537-4	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGAACAGCCTAAGGAAGTGG
T7-AasgRNA-TP53_856	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTCTTCTCTGTGCGCCGTC
T7-AatgRNA-TP53_856-1	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACACTTCTCTGTGCGCCGTC

T7-AatgRNA-TP53_856-2	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTCTTTCTGTGTGCGCCGGTC
T7-AatgRNA-TP53_856-3	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTCTTTCTCTGAGCGCCGGTC
T7-AasgRNA-dsActivator-1	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGACCAGGATGGGCACCACCC
T7-AasgRNA-dsActivator-2	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGATCGTTACGCTAACTATGA
T7-AasgRNA-dsActivator-3	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGAGAAGTCATTTAATAAGGC
T7-AasgRNA-DNMT1-1	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCTCACTCCTGCTCGGTGAA
T7-AasgRNA-DNMT1-2	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAGGAGGTTTCAGTCTCCGTG
T7-AasgRNA-DNMT1-3	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACCTGATGGTCCATGTCTGTTA
T7-AasgRNA-DNMT1-4	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTTTCCCTTCAGCTAAAATAA
T7-AasgRNA-EMX1-2	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACTCCTCCGGTTCTGGAACCAC
T7-AasgRNA-HERC2A	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAGCATTAAATGTCAAGTTCT
T7-AasgRNA-HERC2G	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACAGCATTAAAGTGTCAAGTTCT
T7-crRNA-M13mp18-F	TAATACGACTCACTATAGGATTTCTACTATTGTAGATGATCGTT ACGCTAACTATGAGGG
T7-crRNA-M13mp18-R	CCCTCATAGTTAGCGTAACGATCATCTACAATAGTAGAAATCCT ATAGTGAGTCGTATTA
T7-crRNA-HPV16-2F	TAATACGACTCACTATAGGATTTCTACTAAGTGTAGATTGAAGT AGATATGGCAGCACGGG
T7-crRNA-HPV16-2R	CCCGTGCTGCCATATCTACTTCAATCTACACTTAGTAGAAATCC TATAGTGAGTCGTATTA

T7-crRNA-HPV18-2F	<u>TAATACGACTCACTATAGG</u> ATTTCTACTAAGTGTAGATACAATA TGTGCTTCTACACAGGG
T7-crRNA-HPV18-2R	CCCTGTGTAGAAGCACATATTGTATCTACACTTAGTAGAAATCC TATAGTGAGTCGTATTA
T7-sgRNA-M13mp18	TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACG GGTGTGCCAATGGCCACTTTCCAGGTGGCAAAGCCCGTTGAACT TCAAGCGAAGTGGCACGATCGTTACGCTAACTATGA
T7-promoter-F	TAATACGACTCACTATAGG
T7-crRNA-BRCA1_3232-R	ATTGCTTGAGCTGGCTCCTTATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-TP53_856-R	GACCGGCGCACAGAGAAAGAATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-HPV16-1R	TTTGTTAGCCTGTAATGTAGATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-HPV18-1R	TTTAGTATCTTGCAATGTACATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-dsActivator-1R	GGGTGGTGCCCATCCTGGTCATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-dsActivator-2R	TCATAGTTAGCGTAACGATCATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-dsActivator-3R	GCCTTATTAAATGACTTCTCATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-DNMT1-1R	TTCACCGAGCAGGAGTGAGGATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-DNMT1-2R	CACGGAGACTGAACACTCCTATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-DNMT1-3R	TAACAGACATGGACCATCAGATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-DNMT1-4R	TTATTTTAGCTGAAGGGAAAATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-EMX1-2R	GTGGTTCAGAACC GGAGGAATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-HERC2G-R	AGCATTAAATGTCAAGTTCTATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
T7-crRNA-HERC2A-R	AGAACTTGACACTTAATGCTATCTACAATAGTAGAAATCCTATA GTGAGTCGTATTA
Primers	
Target 1-F	TCTGCTCAGTCCCAGAATGGC
Target 1-R	AGAAGGCTCCCGCTTTATTTTCG
Target 2-F	TAAGCCTATGGCTGAGGCTGC
Target 2-R	TCCGACTGTCACCTCAGTGGAG
CaMV-F	GCTAACGGAACCAGCATCTACA
CaMV-R	TCAACTTCTTCTGCTTCTTGG

T7-AasgRNA-HPV16-R	<u>GTGCTGCCATATCTACTTCAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-HPV18-R	<u>TGTGTAGAAGCACATATTGTGTGCCACTTCGCTTGAAGTTCA</u>
HPV16_site_2-F	GTTGTTGATACTACACGCAGTA
HPV16_site_2-R	GTCGTAGGTACTCCTTAAAGTT
HPV18_site_2-F	TACTGTGGTAGATACCACTCCC
HPV18_site_2-R	ATACTGCTTAAATTTGGTAGCA
B101-F	CAGCGAGGTGGATTACCTGGT
B101-R	GGGGTGCAGGGTGCCGAA
O01/02/03-F	GCAAACCTCACGTGGCGGC
O01/02/03-R	G TTCAGTTTCAGTGTCAGTAAC
BRCA1_3232-F	GTACAGTGAGCACAATTAGCCG
BRCA1_3232-R	ACTTCATTAGTACTGGAACCTACTTC
BRCA1_3537-F	CAGATTTCTCTCCATATCTGATTTTCAG
BRCA1_3537-R	TCTAACAGGTCATCAGGTGTCTC
TP53_856-F	CTTTGAGGTGCGTGTTCGTGC
TP53_856-R	CCTGGGGGCAGCTCGTGG
M13F(-47)	<u>CGCCAGGGTTTTCCAGTCACGAC</u>
M13R(-48)	<u>AGCGGATAACAATTTACACAGGA</u>
T7-AasgRNA-F	<u>TAATACGACTCACTATAGGGTCTAAAGGACAGAATTTTTCAACGGTG</u>
T7-AasgRNA-M13mp18-R	<u>TCATAGTTAGCGTAACGATCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-Target 1-R	<u>ATAGCCAAGGGACTGGGAGGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-Target 2-R	<u>ACTGAAGCCATTCTCTCCAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-CaMV-R	<u>AGGTTTCGCGGCGAAGATAGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-B101-R	<u>TCCACGCCCACATGGTCGCGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA-B101-R	<u>TCCACGCCCATATGGTCGCGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-O01-R	<u>GGTAGACCATCCTGCAAGCGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA-O01-R	<u>GGTAGACCATCCTGCAAGTGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-O02/03-R	<u>CAGGATGGTCTACCCCCAGTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA-O02/03-R	<u>CAGGATGGTCTACCCCCATTGTGCCACTTCGCTTGAAGTTCA</u>

T7-AasgRNA- BRCA1_3232-R	<u>ATTGCTTGAGCTGGCTCCTTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3232-1-R	<u>ATTGCTTGAGCTGGCTCCTAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3232-2-R	<u>ATTGCTTGAGCTGGGTCCTTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3232-3-R	<u>ATTGCTTGACCTGGCTCCTTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3232-4-R	<u>ATTGGTTGAGCTGGCTCCTTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- BRCA1_3537-R	<u>CCACTTCCCATAGGCTGTTTCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3537-1-R	<u>CCACTTCCCATAGGCTGTTGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3537-2-R	<u>CCACTTCCCATAGGCTGTTTCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3537-3-R	<u>CCACTTCCCTTAGGCTGTTTCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AatgRNA- BRCA1_3537-4-R	<u>CCACATCCCATAGGCTGTTTCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- HPV16_site_1-R	<u>TTTGTTAGCCTGTAATGTAGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- HPV18_site_1-R	<u>TTTAGTATCTTGCAATGTACGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- HPV16_site_2-R	<u>GTGCTGCCATATCTACTTCAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- HPV18_site_2-R	<u>TGTGTAGAAGCACATATTGTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- TP53_856-R	<u>GACCGGCGCACAGAGAAAGAGTGCCACTTCGCTTGAAGTTC</u>
T7-AatgRNA- TP53_856-1-R	<u>GACCGGCGCACAGAGAAATAGTGCCACTTCGCTTGAAGTTC</u>
T7-AatgRNA- TP53_856-2-R	<u>GACCGGCGCACACAGAAAGAGTGCCACTTCGCTTGAAGTTC</u>
T7-AatgRNA- TP53_856-3-R	<u>GACCGGCGCTCAGAGAAAGAGTGCCACTTCGCTTGAAGTTC</u>
T7-AasgRNA- target_1-R	<u>GGGTGGTGCCATCCTGGTTCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- target_2-R	<u>TCATAGTTAGCGTAACGATCGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- target_3-R	<u>TCAGCTGTGGAACACCCAGGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA- target_4-R:	<u>GCCTTATTAAATGACTTCTCGTGCCACTTCGCTTGAAGTTCA</u>

T7-AasgRNA-DNMT1_target_1-R:	<u>TTCACCGAGCAGGAGTGAGGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-DNMT1_target_2-R	<u>CACGGAGACTGAACACTCCTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-DNMT1_target_3-R:	<u>TAACAGACATGGACCATCAGGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-DNMT1_target_4-R	<u>TTATTTTAGCTGAAGGGAAAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-EMX1_target_1-R	<u>GGAGGGAGGGGCACAGATGAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-EMX1_target_2-R	<u>GTGGTTCCAGAACCGGAGGAGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-HERC2A-R:	<u>AGAACTTGACATTTAATGCTGTGCCACTTCGCTTGAAGTTCA</u>
T7-AasgRNA-HERC2G-R:	<u>AGAACTTGACACTTAATGCTGTGCCACTTCGCTTGAAGTTCA</u>
BRCA1_3232-sgPOT-1-F	CTGCTCCCCTCATGGCCCCACTTGCTCCTT
BRCA1_3232-sgPOT-1-R	ACTATGTTTCTAAGATGACATAAAGGTGGG
BRCA1_3232-sgPOT-2-F	ATCATGGGAACTGCAGGAAGAGGTTCCCAG
BRCA1_3232-sgPOT-2-R	AATGTCAGATGCACAATTACTAGCTCTTTG
BRCA1_3232-sgPOT-3-F	GATTTTTATGGAGGTTGACTTTGTGTGTGC
BRCA1_3232-sgPOT-3-R	AGCTGCACTGAGAACCATGTTTCCCTCCTC
BRCA1_3232-sgPOT-4-F	GTCTGTCTATAGGGTTGGGGGAGAAAGAA
BRCA1_3232-sgPOT-4-R	ATACCAGCCTATGGATTTCCGACTTGCAAG
BRCA1_3232-sgPOT-5-F	AAGATAACAATGCCCATGAGTGTGGCAGGG
BRCA1_3232-sgPOT-5-R	TGGTTGCCATTCTCCTCGGCCCCCACCAG
BRCA1_3232-sgPOT-6-F	TATCACTTCATGTAGGTGCTGAATTTAAT
BRCA1_3232-sgPOT-6-R	TGGCTCTGAATGGGAATCCACGGCTTCCTT

BRCA1_3232- sgPOT-7-F	AAGAATTTTCAGCTGAATAACAACAAAAAAG
BRCA1_3232- sgPOT-7-R	TAGTATAAATACTTAAAGCTATAAATTTTT
BRCA1_3232- sgPOT-8-F	TTACAGATGCTTCCTCAGCAACGGAAAGCC
BRCA1_3232- sgPOT-8-R	AACACACTGGTCACCTGTGGAATTTCTGCT
BRCA1_3232- sgPOT-9-F	CTCACAAAGATTACAAACCACAAAAGGAAA
BRCA1_3232- sgPOT-9-R	GAGATTGCTATGTTTCAGTTTTGGGGTATAC
BRCA1_3232- sgPOT-10-F	ATTTTGAAGTGAATGAAAATGAAAACGCCA
BRCA1_3232- sgPOT-10-R	TTATAAAAACATTTAATGCCAGAACATTT
BRCA1_3232- sgPOT-11-F	ACCCTGACTGATACAGATAACCTAGCCCAA
BRCA1_3232- sgPOT-11-R	ATAGTTTAATAGTGGAGCAACTGTTAGAAT
BRCA1_3232- sgPOT-12-F	GCACCATATGGAAGTTATCAAGGCTTATAG
BRCA1_3232- sgPOT-12-R	ATCCCAGCTGTTTCAGCTGTGGTTCAAGGGG
BRCA1_3232- sgPOT-13-F	GCAGCCGGGTTCTGCCCTCGTTCGGGGAAC
BRCA1_3232- sgPOT-13-R	ACTGAAGGCTCAAGAGGCAGCCTCTGAGGA
BRCA1_3232- sgPOT-14-F	CATATCATTGCTGAGTATTCCTTTGGAGAT
BRCA1_3232- sgPOT-14-R	TCACTGGACATGAGCTGCTCTTGAGAATAA
BRCA1_3232- sgPOT-15-F	TTCTAGTTGTTTTCTCTTTTGGAAATACAT
BRCA1_3232- sgPOT-15-R	ATATACACTTCCTCATAAGGATTACAGTGA
BRCA1_3232- sgPOT-17-F	AATATGCTGGAGATTTATGGGGACTATCTA
BRCA1_3232- sgPOT-17-R	TTTATATGGCTTGACTGACTCTTTTACCAA
BRCA1_3232- sgPOT-18-F	ATGTCACAAACGTTGTGCAGTCCCTATGAG
BRCA1_3232- sgPOT-18-R	CCGAAGGGTATTTATCAAGCTTTGAAGTTT

BRCA1_3232- sgPOT-19-F	ACAATTGTTATAGGGAAGGCAAAATTCCAC
BRCA1_3232- sgPOT-19-R	TATGCTCTTATTCATTTTAATCTATCTTAT
BRCA1_3232- sgPOT-20-F	GACCTAGCTCCTAGGATGCTTGAGGCTGAA
BRCA1_3232- sgPOT-20-R	GTTTCAGCTACTCTAATTCTACCTGACTGG
BRCA1_3232- sgPOT-21-F	CTTAGGAAGCTCCAAGTTATAGAACCTTCT
BRCA1_3232- sgPOT-21-R	ATACCAAGATCTTGGCTCCTGTCTTAAGGA
BRCA1_3232- tgPOT-1-F	GAAAGGTAAATGCTAGGAACAGGTGGCATC
BRCA1_3232- tgPOT-1-R	ATAGTTTGTTCCTACCTATAACATAAAG
BRCA1_3232- tgPOT-2-F	CTTTTAGATAAAATGGAAATGAAGACAAACA
BRCA1_3232- tgPOT-2-R	TATAATAATAATAAAATTAATAAATAATTC
BRCA1_3232- tgPOT-7-F	TTTGGAGCAAGTACCAAATGCCAAGCACTG
BRCA1_3232- tgPOT-7-R	TCATCTGTAAAACACCACCTTTTTGAGTTT
BRCA1_3232- tgPOT-8-F	ATGATTGCCCGCCAAGATTTTCCTTTTTTTT
BRCA1_3232- tgPOT-8-R	CCTGTAATCTCAGCTACTTGGGAGGCTGAG
BRCA1_3232- tgPOT-9-F	TGCGTTGGGCAAACACAAAGATGCTATTTG
BRCA1_3232- tgPOT-9-R	TTATCACAGGCACCTCACGAGTTAGGTGAG
BRCA1_3232- tgPOT-10-F	AAAGCCTGGGAGTGATTAACAACCACTGCA
BRCA1_3232- tgPOT-10-R	CTTACAGGAGCTTTTAAGTCCACAATTTCC
BRCA1_3232- tgPOT-11-F	GAAAATTTCTGAAATGAATTAATAATGAGAA
BRCA1_3232- tgPOT-11-R	TGAATACTAATATAATACTATGAATTTCTC
BRCA1_3232- tgPOT-12-F	GCTGCAGAGCCGGTGGTTTTTCTATCACTA
BRCA1_3232- tgPOT-12-R	TGCATCCGCGTCAGGTAAGGACGCCCGGTT

BRCA1_3232- tgPOT-13-F	CCTTTCAAAGAGTGCATTTGCTATCACAAA
BRCA1_3232- tgPOT-13-R	GATTCTTCATGTTTCATTTGGGGTAATAAG
BRCA1_3232- tgPOT-14-F	AATATTTTGAAGTGAATGAAAATGAAAAA
BRCA1_3232- tgPOT-14-R	CTAATATAAGCATTTAATGCTGTGCGTTTC
BRCA1_3232- tgPOT-15-F	AAATTATTTTAACCTGAATGATAATGAAAA
BRCA1_3232- tgPOT-15-R	TCTAAAATATACATATAAGGCTATATATTT
BRCA1_3232- tgPOT-16-F	TTTTGAATTAATAAAAATGATACACAGCT
BRCA1_3232- tgPOT-16-R	TCTAAATAAGCATTTCAAACTATAAATTCC
BRCA1_3232- tgPOT-18-F	TTTTGTTTGAGTGATAATAAATATATTGTA
BRCA1_3232- tgPOT-18-R	GAATATATGCATTTAACACTATATATTTTC
BRCA1_3232- tgPOT-19-F	TCTCTCTCTTTCTTTCCAAGAGGCCAATTT
BRCA1_3232- tgPOT-19-R	GCTGATGAGGGGGTTAGAAAAAGCTTTGTG
BRCA1_3232- tgPOT-20-F	GGTTAGCTGGATTTGTCCGTATTGCAGATG
BRCA1_3232- tgPOT-20-R	GAAAAGGTGATGCATGGCACCTGTGCAGAG
BRCA1_3232- tgPOT-21-F	TAATGCATAACTTCATTTAAAAAGTTTTGA
BRCA1_3232- tgPOT-21-R	TCCATAGCATAACAGACTATTTTAACAATCT
BRCA1_3232- tgPOT-22-F	CATTTTGTTCTGAATAAAAAGAAGACTACA
BRCA1_3232- tgPOT-22-R	TTTAACATGTGTTTAAACTATAAATTCCC
BRCA1_3232- tgPOT-23-F	TCGAACATACCCAAGAGTAGAGAGAACCAT
BRCA1_3232- tgPOT-23-R	AGGGGAGGGATACATGAAACAGGATGGCAA
BRCA1_3232- tgPOT-24-F	TATATTGAACTGAAAGAAAAGGAAAATACA
BRCA1_3232- tgPOT-24-R	TGATCTAAGCATTTGTTGCTGTAAATTTCT

TP53_856-sgPOT-1-F	AAAGTTATTTGGAATATTTCTGCTCGACAG
TP53_856-sgPOT-1-R	TTTAGCTGGCATCACTGGCGTCCTGAAGAT
TP53_856-sgPOT-2-F	GAGGAGTTTGACTIONTTAGCATTAGCACATGA
TP53_856-sgPOT-2-R	ATAGAGTTTACTTGTGCTATATTCCTATTG
TP53_856-sgPOT-3-F	TGGCTCCCCTCTGTCCATCTGCAAGACAGA
TP53_856-sgPOT-3-R	AGGCACTCCTGGGCTCAGCTTGACATGGCT
TP53_856-sgPOT-4-F	GCACCTCCACGGCACTCCCAACTTTTTGTC
TP53_856-sgPOT-4-R	CGTCCCAACTCCTGCGCACGAAGGTGTTCG
TP53_856-sgPOT-5-F	TGGAACCTGCCAACAGATTTTTGCTTTTTG
TP53_856-sgPOT-5-R	GAAAATAGCAGCATGGGCAGCTGGCAGAGG
TP53_856-sgPOT-6-F	CAGCCAAAACAGCAGTTCATTTGGGCATG
TP53_856-sgPOT-6-R	GCTGGTGTGAGCGTTGAACAGCTTGACCTG
TP53_856-sgPOT-7-F	GTTTATTTCTGGGTTTTATATTTGATTCTA
TP53_856-sgPOT-7-R	TAAGACTTATAATAAAGCAATTAAAATTAG
TP53_856-sgPOT-9-F	ATCTTAGGACTCACAGTCTCCGGGCCTTTC
TP53_856-sgPOT-9-R	AGAAAACAAGTAATCGTTCTGAGATTGAAA
TP53_856-sgPOT-10-F	GAACTCCACATGAGATCACAGGTGCAGGAT
TP53_856-sgPOT-10-R	TGGACCCATTGACAAGTGACTIONGAAACCCCG
TP53_856-sgPOT-11-F	GAACTCCACATGAGACCACAGGTGCAGGAT
TP53_856-sgPOT-11-R	TGGACCCATTGACAAGTGACTIONGAAACCCTG
TP53_856-tgPOT-2-F	CTGTAGAGAACTAATGTAGTCTACACTGTA
TP53_856-tgPOT-2-R	GTTACTTCACTIONGTGCAAGGCTCCTGAAAAT

TP53_856-tgPOT-3-F	CAACCCAACAGATTAGTTTGAAAACAATGT
TP53_856-tgPOT-3-R	GAGAATGTGCTAAGTCAGCTAGGCACCTGG
RPA-BRCA1_3232-F-1	GTACAGTGAGCACAAATTAGCCGTAATAACA
RPA-BRCA1_3232-R-1	ACTTCATTAGTACTGGAACCTACTTCATTA
RPA-TP53_856-F	CTTTGAGGTGCGTGTTTGTGCCTGTCCTGG
RPA-TP53_856-R	CCTGGGGGCAGCTCGTGGTGAGGCTCCCCT
RPA-BRCA1_3232-F-2	ACATTCCAAGTACAGTGAGCACAAATTAGCC
RPA-BRCA1_3232-R-2	ATTTTGGCCCTCTGTTTCTACCTAGTTCTG
RNA	
AasgRNA-M13mp18	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACGAU <u>CGUUACGCUAACUAUGA</u>
AasgRNA-Target 1	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACCCU <u>CCCAGUCCCUUGGCUAU</u>
AasgRNA-Target 2	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACUGG <u>AGAGGAAUGGCUUCAGU</u>
AasgRNA-CaMV	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACCUA <u>UCUUCGCCGCGAAACCU</u>
AasgRNA-HPV16_site_2	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACUGA <u>AGUAGUAUGGCAGCAC</u>
AasgRNA-HPV18_site_2	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACACA <u>AUAUGUGCUUCUACACA</u>
AasgRNA-B101	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACCGC <u>GACCAUGUGGGCGUGGA</u>
AatgRNA-B101	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACCGC <u>GACCAUAUGGGCGUGGA</u>
AasgRNA-001	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACCGC <u>UUGCAGGAUGGUCUACC</u>

AatgRNA-001	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACC <u>AC</u> UUGCAGGAUGGUCUACC
AasgRNA-002/03	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>ACU</u> GGGGGUAGACCAUCCUG
AatgRNA-002/03	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>AU</u> GGGGGUAGACCAUCCUG
AasgRNA- BRCA1_3232	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>AG</u> GAGCCAGCUCAAGCAAU
AatgRNA- BRCA1_3232-1	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>UAG</u> GAGCCAGCUCAAGCAAU
AatgRNA- BRCA1_3232-2	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>AG</u> GACCAGCUCAAGCAAU
AatgRNA- BRCA1_3232-3	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>AG</u> GAGCCAG <u>G</u> UCAAGCAAU
AatgRNA- BRCA1_3232-4	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>AG</u> GAGCCAGCUCA <u>C</u> CAAU
AasgRNA- BRCA1_3537	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>GAA</u> CAGCCUAUGGGAAGUGG
AatgRNA- BRCA1_3537-1	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>CAA</u> CAGCCUAUGGGAAGUGG
AatgRNA- BRCA1_3537-2	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>GAA</u> CA <u>CC</u> UAUGGGAAGUGG
AatgRNA- BRCA1_3537-3	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>GAA</u> CAGCCUA <u>AG</u> GGAAGUGG
AatgRNA- BRCA1_3537-4	GUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCACUU UCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCAC <u>GAA</u> CAGCCUAUGGGA <u>U</u> GUGG
crRNA-M13mp18	AUUUCUACUAUUGUAGAUGAUCGUUACGCUAACUAUGAGGG
crRNA- HPV16_site_2	AUUUCUACUAAGUGUAGAU <u>U</u> GAAGUAGAUUGGCAGCACAU <u>A</u>
crRNA- HPV18_site_2	AUUUCUACUAAGUGUAGAU <u>ACA</u> AUUGUGCUUCUACACAGUC

sgRNA-M13mp18	<u>GAUCGUUACGCUAACUAUGAGUUUUAGAGCUAGAAUAGCAAGU</u> UAAAAUAGGCUAGUCCGUUAUCAACUUGAAAAAGUGGCACCGA GUCGGUGCU
T7-AasgRNA- HPV16_site_1	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACC <u>UACAUUACAGGCUAACAAA</u>
T7-AasgRNA- HPV18_site_1	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACG <u>UACAUUGCAAGAUACUAAA</u>
T7-AasgRNA- dsActivator-1	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACG <u>ACCAGGAUGGGCACCACCC</u>
T7-AasgRNA- dsActivator-2	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACG <u>AUCGUUACGCUAACUAUGA</u>
T7-AasgRNA- dsActivator-3	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACG <u>AGAAGUCAUUUAAUAAGGC</u>
T7-AasgRNA- DNMT1-1	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACC <u>CUCACUCCUGCUCGGUGAA</u>
T7-AasgRNA- DNMT1-2	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>GGAGUGUUCAGUCUCCGUG</u>
T7-AasgRNA- DNMT1-3	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACC <u>UGAUGGUCCAUGUCUGUUA</u>
T7-AasgRNA- DNMT1-4	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACU <u>UUCCCUUCAGCUAAAAUA</u>
T7-AasgRNA- EMX1-2	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACU <u>CCUCCGGUUCUGGAACCAC</u>
T7-AasgRNA- HERC2A	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>GCAUUAAGUGUCAAGUUCU</u>
T7-AasgRNA- HERC2G	GGGUCUAAAGGACAGAAUUUUUCAACGGGUGUGCCAAUGGCCAC UUUCCAGGUGGCAAAGCCCCGUUGAACUUCAAGCGAAGUGGCACA <u>GCAUUAAGUGUCAAGUUCU</u>
FQ ssDNA reporter	
poly_A	5'-FAM-AAAAA-BHQ1-3'
poly_T	5'-FAM-TTTTT-BHQ1-3'
poly_G	5'-FAM-GGGGG-BHQ1-3'

poly_C	5' -FAM-CCCCC-BHQ1-3'
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^a Target 1 and Target 2 are re-named from mouse *Nrl* and *Prmt7* target sites used in our previous works for mammalian genome editing [1], respectively.

^b HPV16 and HPV18 (site 1 and site 2) and dsActivator 1 and 2 are derived and re-named from previous work used for Cas12a-DETECTR detection [2]. HPV16 and HPV18 (site 1) are varied by 6 base pairs. HPV16 and HPV18 (site 2) are sequences within the hypervariable loop C of the L1-encoding gene.

^c HERC2 SNP (>A and >G) and dsActivator 3 are derived and re-named from previous work used for Cas14-DETECTR detection [3].

^d *DNMT1* and *EMX1* sites are derived from previous work used for genome editing [4].

Table S2. The components of buffers tested for Cas12b-mediated DNA detection in this study. Buffer 1, 3, 4, 5 were derived from previous reports, and Buffer 2, 6, 7, 8 were derived from commercial buffers. 1: Nuclease Assay Buffer [5]; 2: NEBuffer™ 3.1; 3: Cas12a Binding Buffer [2]; 4: Cas13 Nuclease Assay Buffer [6]; 5: Cas12a Cleavage Buffer [2]; 6: NEBuffer™ 2; 7: NEBuffer™ 2.1; 8: Cutsmart® Buffer.

Buffer ID	1x Components
1	60 mM NaCl, 40 mM Tris-HCl, 6 mM MgCl ₂ , pH7.5
2	100 mM NaCl, 50 mM Tris-HCl, 10 mM MgCl ₂ , 100 µg/ml BSA, pH 7.9
3	20 mM Tris-HCl, 5 mM MgCl ₂ , 100 mM KCl, 1 mM DTT, 5% Glycerol, 50 µg/mL Heparin
4	60 mM NaCl, 20 mM HEPES, 6 mM MgCl ₂ , pH6.8
5	150 mM KCl, 20 mM HEPES, 10 mM MgCl ₂ , 0.5 mM DTT, 1% Glycerol, pH7.5
6	50 mM NaCl, 10 mM Tris-HCl, 10 mM MgCl ₂ , 1 mM DTT, pH7.9
7	50 mM NaCl, 10 mM Tris-HCl, 10 mM MgCl ₂ , 100 µg/ml BSA, pH 7.9
8	50mM Potassium Acetate, 20mM Tris-acetate, 10mM Magnesium Acetate, 100µg/ml BSA, pH 7.9
9	50 mM Tris-HCl, 10 mM MgCl ₂ , 10 mM DTT, pH 7.5
10	66 M Tris-HCl, 10 mM MgCl ₂ , 1 mM DTT ,7.5% PEG6000, pH7.6

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