**MiSeq Primers**

ADAPTORS:

CS1    5’-ACACTGACGACATGGTTCTACA-3’

CS2    5’-TACGGTAGCAGAGACTTGGTCT-3’

**Trp53: (Exon5) with adaptors):**

p53 MiSeq Left Primer:

ACACTGACGACATGGTTCTACACTGTGCAGTTGTGGGTCAG

p53 MiSeq Right Primer:

TACGGTAGCAGAGACTTGGTCTACAAATTTCCTTCCACCCGG

258bp (+44bp w/adaptors)

**PTEN2 primers: (Exon 5) with adaptors)**

PTEN2 MiSeq Left Primer:

ACACTGACGACATGGTTCTACAGTTGCACAGTATCCTTTTGAAGA

PTEN2 MiSeq Right Primer:

TACGGTAGCAGAGACTTGGTCTCAGCTTACCTTTTTGTCTCTGG

Band size: 248bp (+44bp w/ adaptors)

**PTEN3 primers: (Exon 7) with adaptors**

PTEN3 MiSeq Left Primer:

ACACTGACGACATGGTTCTACAAAGAAGTCCTTACATGGGTTGG

PTEN3 MiSeq Right Primer:

TACGGTAGCAGAGACTTGGTCTTGGCTGAGGGAACTCAAAGT

Band size: 290bp (+44bp w/ adaptors)

**BRCA1 (Exon 6) with adaptors**

BRCA1 MiSeq Left Primer:

ACACTGACGACATGGTTCTACATGCCCCTTTTTGTTTTACAGT

BRCA1 MiSeq Right Primer:

TACGGTAGCAGAGACTTGGTCTAGAACACTTGTCCAGCCACTA

294bp (+42bp w/adaptors)

ACACTGACGACATGGTTCTACA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **sgRNA** | **Exon #** | **Quality Score** | **Seq. Scan Score** | **Sequence (PAM)** |
| Trp 53 sgRNA #2 | 5 | 65 | 0.5926 | CATCGGAGCAGCGCTCATGGTGG |
| Trp 53 sgRNA #3 | 5 | 44 (Chop chop) | 0.8054 | CGGAGCAGCGCTCATGGTGGGGG |
| PTEN sgRNA #2 (Ex 5) | 5 | 79 | 0.394 | TGTGCATATTTATTGCATCGGGG |
| PTEN sgRNA #3 (Ex 7) | 7 | #5 | 0.6911 | AGCTGGCAGACCACAAACTGAGG |
| BRCA1 sgRNA #1 | 6 | MIT Score = 93 | 0.7279 | GCGTCGATCATCCAGAGCGTGGG |
| BRCA1 sgRNA #2 | 6 | MIT Score = 89 | 0.7254 | GCTACCGGAACCGTGTCAGAAGG |

LEFT PRIMER RIGHT PRIMER TARGET REGION PAM

p53:

CTGTGCAGTTGTGGGTCAGCGCCACACCTCCAGCTGGGAGCCGTGTCCGCGCCATGGCCATCTACAAGAAGTCACAGCACATGACGGAGGTCGTGAGACGCTGCCCCCACCATGAGCGCTGCTCCGATGGTGATGGTAAGCCCTCAACACCGCCTGTGGGGTTAGGACTGGCAGCCTCCCATCTCCCGGCTTCTGACTTATTCTTGCTCTTAGGCCTGGCTCCTCCCCAGCATCTTATCCGGGTGGAAGGAAATTTGT

**PTEN 2:**

GTTGCACAGTATCCTTTTGAAGACCATAACCCACCACAGCTAGAACTTATCAAACCCTTCTGTGAAGATCTTGACCAATGGCTAAGTGAAGATGACAATCATGTTGCAGCAATTCACTGTAAAGCTGGAAAGGGACGGACTGGTGTAATGATTTGTGCATATTTATTGCATCGGGGCAAATTTTTAAAGGCACAAGAGGCCCTAGATTTTTATGGGGAAGTAAGGACCAGAGACAAAAAGGTAAGCTGG

**PTEN3:**

AAGAAGTCCTTACATGGGTTGGTTATGTTTTTACATATTTTATTTCTACTGATTTGTTTTAGATAAGCAGTCAATATGAAGAGTTATCATTTTGTGTATATTTCTGTTTATTTTATCATTAAAGTAGTTTTTGATAAGTTGAAGACATTTCTTGTGAAATGATCCTATATGTATTTAACCACACAGATCCTCAGTTTGTGGTCTGCCAGCTAAAGGTGAAGATATATTCCTCCAATTCAGGACCCACGCGGCGGGAGGACAAGTTCATGTACTTTGAGTTCCCTCAGCCA

**BRCA1:**

TGCCCCTTTTTGTTTTACAGTTACAAATGGTTTTAGTTTTTCAAAAAAGAGAAATAATTCTTGTGAGCGTTTGAATGAGGAGGCGTCGATCATCCAGAGCGTGGGCTACCGGAACCGTGTCAGAAGGCTTCCCCAGGTCGAACCTGGAAATGCCACCTTGGTAAAGCTGCTTTCCACGTTTTTTTCTGCCGTCTCTTTATTGAGTCTTAGTGAGTTAGTGAGTGTGTGGATCTATATAAGAACTTAGTAGAGAGAGGATGGTGATTGTACATTTAGTGGCTGGACAAGTGTTCT