**Table S2**. Sequences of the clones used for the control library.

|  |  |
| --- | --- |
| ***% of Library*** | ***Sequence*** |
| 60% | GCCATGCATGGACAAGTAGACTGTAGTCCAGGAATATGGCAACTAGATTGTACACATTTAGAAGGAAAAGTTATCCTGGTAGCAGTTCATGTAGCCAGTGGATATATAGAAGCAGAAGTTATTCCAGCAGAAACAGGGCAGGAAACAGCATATTTTCTTTTAAAATTAGCAGGAAGATGGCCAGTAAAAACAATACATACAGACAATGGCAGCAATTTCACCAGTGCTACGGTTAAGGCCGCCTGTTGGTGGGCGGGAATCAAGCAGGAATTTGGAATTCCCTACAATCCCCAAAGTCAAGGAGTAGTAGAATCTATGAATAAAGAATTAAAGAAAATTATAGGACAGGTAAGAGATCAGGCTGAACATCTTAAGACAGCAGTACAAATGGCAGTATTCAT |
| 33.4% | GCCATGCATGGACAAGTAGACTGTAGTCCAGGAATATGGCAGCTAGATTGTACACATTTAGAAGGAAAAATTATCCTGGTAGCAGTGCATGTAGCCAGTGGATATATAGAAGCAGAAGTTATCCCAGCAGAGACAGGGCAAGAAACAGCATACTTTCTCCTAAAACTAGCAGGAAGATGGCCAGTAAAAACAATACATACAGACAATGGCAGCAATTTCACCAGTACTACAGTTAAGGCCGCCTGTTGGTGGGCGGGGATCAAGCAGGAATTTGGTATTCCCTACAATCCTCAAAGTCAAGGAGTAATAGAATCTATGAATAAAGAATTAAAGAAGATTATAGGGCAAGTAAGAGATCAGGCTGAACATCTTAAGACAGCAGTACAAATGGCAGTATTCAT |
| 5% | GCCATGCATGGACAAGTAGACTGTAGTCCAAGAATATGGCAACTAGATTGTACACATTTAGAAGGAAAAATTATCCTGGTAGCAGTTCATGTAGCCAGTGGATATATAGAAGCAGAAGTTATTCCAGCAGAAACAGGGCAGGAAACAGCATACTTTCTCTTAAAACTAGCAGGAAGATGGCCAGTAAAAACAATACATACAGACAATGGCACCAATTTCACCAGTAATGCTGTTAAGGCCGCCTGTTGGTGGGCAGGGATCAAGCAAGAATTTGGCATTCCCTACAATCCCCAAAGTCAAGGAGTAGGAGAATCTATGAATAATGAATTAAAGAAAATTATAGGACAAGTAAGAGATCAGGCCGAACATCTTAAGACAGCAGTACAAATGGCAGTATTCAT |
| 1% | GCCATGCATGGACAAGTAGACTGTAGTCCAGGAATATGGCAACTAGATTGTACACACTTAGAAGGGAAAATTATCTTGGTAGCAGTTCATGTAGCCAGTGGATATATAGAAGCAGAAGTTATTCCAGCAGAAACAGGGCAAGAAACAGCATACTTTATCTTAAAATTAGCAGGAAGATGGCCAGTAAAAACAATACATACAGACAATGGCAGCAATTTCACCAGTGCTACAGTGAAGGCCGCCTGTTGGTGGGCAGGGATCAAGCAGGAATTTGGCATTCCCTACAATCCCCAAAGTCAAGGAGTAGTAGAATCTATGAATAAAGAATTAAAACAAATTATAGGACAGGTGAGAGATCAAGCTGAACATCTTAAAACAGCAGTACAAATGGCAGTATTCAT |
| 0.5% | GCCATGCATGGACAAGTAGACTGTAGTCCAGGAATATGGCAATTAGATTGTACACATTTAGAGGGAAAAATCATCCTGGTAGCAGTTCATGTAGCCAGTGGATATATAGAAGCAGAAGTTATTCCAGCAGAGACAGGACAGGAAACAGCATACTTTCTCTTAAAATTAGCAGGAAGATGGCCAGTAAAAATAATACATACAGATAATGGCAGCAATTTCACCAGTACTACGGTTAAGGCCGCCTGTTGGTGGGCGGGAATCAAGCAGGAATTTGGCATCCCCTACAATCCCCAAAGTCAAGGTGTAGTAGAATCTATGAATAAAGAATTAAAGAAAATTATAGGACAGGTAAGAGATCAGGCTGAACATCTCAAGACAGCAGTACAAATGGCAGTATTCAT |
| 0.1% | GCCATGCATGGACAAGTAGACTGTAGTCCAGGAATATGGCAACTAGATTGTACCCATTTAGAAGGAAAAGTTATCCTAGTAGCAGTACATGTAGCCAGTGGATATATAGAAGCAGAAGTTATCCCAGCAGAGACAGGACAGGAAACAGCATACTTTCTCTTAAAATTGGCAGGAAGATGGCCAGTAAGAACAATACATACAGACAATGGCAGCAACTTCACCAGTGGTGCGGTTAAAGCCGCCTGTTGGTGGGCAGGGATCAAGCAGGAATTTGGCATTCCCTACAATCCCCAAAGTCAAGGAGTAGTAGAATCTATGAATAAAGAATTAAAGAACATTATAGGACAGGTAAGAGAACAGGCTGAACATCTTAAGACAGCAGTACAAATGGCAGTATTCAT |