**Table S1. List of oligonucleotides employed to generate DNA constructs.**

| Primer name | Primer sequence |
| --- | --- |
| P1 | 5'-cacc*ggatcc*CTTCGATCAAGTTAACCGCC-3' |
| P2 | 5'-caccg*ctcgag*AGACGGCGGAGCATCGTGT-3' |
| P3 | 5'-gcgg*ggtacc*ATGTCTTTCACCTATACACATG-3' |
| P4 | 5'-acgg*ggtacc*TGTTTGATCTGTCGACTGGG-3' |
| P5 | 5'-cgc*gGATCC*GGGTGGCAGTATC-3' |
| P6 | 5'-cggag*gatatc*GCTTCTCAAAGTCGGCGT-3' |
| P7 | 5'-gcgg*ggtacc*GTGTGCTGATCGAGGAAT-3' |
| P8 | 5'-gcgg*ggtacc*GAGCTCAAAAGCTCGCAT-3' |
| P9 | 5'-CTTCACCTTCGTTT<u>C</u>CCCGACCGAGATCA-3' |
| P10 | 5'-TGATCTCGGTCGGG<u>G</u>AAACGAAGGTGAAG-3' |
| P11 | 5'-ccgcgca*catatg*AATCTGGACTATCAGATGTAC-3' |
| P12 | 5'-caccg*ctcgag*TCACATGTTCTTCTCGAAAAAC-3' |

Clamp sequences are indicated in lower case, restriction sites in italic and mutations used to generate the mTXNPxC81S mutein underlined.