**Supplementary Material**

**qPCR assays.**

Standard curve table 1: Plasmid dilution showing the amount of DNA in solution and the corresponding molecules number (using the Avogadro`s number).

|  |  |
| --- | --- |
| DNA mass (ng/µl) measured by NanoDrop 2000. | Molecule number / µl |
| 0.1 ng | 2.25 107 |
| 0.02 ng | 4.50 106 |
| 0.004 ng | 9.01 105 |
| 0.0008 ng | 1.08 105 |
| 0.00016 ng | 3.61 104 |
| 0.000032 ng | 7.21 103 |
| 0.000008 ng | 2.00 103 |
| 0.000002 ng | 5.1 102 |

Note: Molecule number = (ng x 6.02 1023 molecules) / (plasmid + insert length (3700 bp) x 109 x 650)

Standard curve table 2: The table shows the Ct results (replicates) of the qPCR runs for each plasmid dilution (copy number).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Copy number | Replicates (Ct) | | | | | | | | Average Ct |
| 2.25 107 | 26.61 | 26.58 | 27.06 | 26.77 | 26.11 | 26.36 | 26.15 | 25.88 | 26.44 |
| 4.50 106 | 29.07 | 35.13 | 28.98 | 28.56 | 28.59 | 29.04 | 28.68 | 28.50 | 29.56875 |
| 9.01 105 |  | 31.23 | 31.79 | 31.11 | 31.19 | 31.43 | 30.82 | 30.65 | 31.174286 |
| 1.08 105 | 33.14 | 32.89 | 34.10 | 33.15 | 33.44 | 34.4 | 33.43 | 33.66 | 33.52625 |
| 3.61 104 | 36.05 | 38.19 | 36.10 | 35.59 | 35.57 | 36.1 | 36.20 |  | 36,25714 |
| 7.21 103 |  | 44.42 | 38.17 | 39.19 |  |  | 37.63 | 38.98 | 39.678 |
| 2.00 103 |  |  |  | 39.38 |  | 39.3 |  | 42.43 | 40.37 |
| 5.1 102 |  |  |  | 41.04 |  | 41.00 |  |  | 41.02 |

Standard curve table 3: Table showing the all the data condensed

|  |  |  |  |
| --- | --- | --- | --- |
| Femtograms | Number of copies | Copy number (log 10) | Ct (average) |
| 1000000 | 2,25E+07 | 7,352182518 | 26,44 |
| 200000 | 4,50E+06 | 6,653212514 | 29,56875 |
| 40000 | 9,01E+05 | 5,954724791 | 31,17428571 |
| 8000 | 1,08E+05 | 5,033423755 | 33,52625 |
| 1600 | 3,61E+04 | 4,557507202 | 36,25714286 |
| 320 | 7,21E+03 | 3,857935265 | 39,678 |
| 8 | 2,00E+03 | 3,301029996 | 40,37 |
| 2 | 5,10E+02 | 2,707570176 | 41,02 |

Standard curve figure 1: Graph of the standard curve, showing the linear equation. Below the graph is the table with the values.