**GC 30% library:**

5’-GGUUACCAGCCUUCACUGCCGAUGCU**(N18)**AGCAUCGGCACCACGGUCGGUCACAC-3’

Forward primer NGS Reverse primer

Conditions used for G4-SELEX-seq:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rounds** | **1** | **2** | **3** | **4** | **5** |
| MgCl2 Conc. (mM) | 5 | 5 | 5 | 5 | 1 |
| D-RNA pool (pmol) | 1000 | 100 | 75 | 50 | 50 |
| Target L-c-kit1 rG4 (pmol) | 200 | 20 | 20 | 10 | 3.3 |
| Negative selection (h) | 2 | 2 | 2 | 1 | 1 |
| Positive selection (min) | 30 | 30 | 30 | 30 | 30 |
| Washing (min) | Pipette mix | Pipette mix | Pipette mix | 10 | 10 |
| Temperature (°C) | 37 | 37 | 37 | 37 | 37 |

**GC 20% library:**

5’-GGUUACCAGCCUUCACUGCCGCCGCC**(N18)**GGCGGCGGCACCACGGUCGGUCACAC-3’

Conditions used for G4-SELEX-seq:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rounds** | **1** | **2** | **3** | **4** | **5** |
| MgCl2 Conc. (mM) | 5 | 5 | 5 | 5 | 1 |
| D-RNA pool (pmol) | 1000 | 300 | 50 | 25 | 25 |
| Target L-c-kit1 rG4 (pmol) | 200 | 60 | 10 | 3.3 | 2.5 |
| Negative selection (h) | 2 | 2 | 2 | 1 | 1 |
| Positive selection (min) | 30 | 30 | 30 | 30 | 30 |
| Washing (min) | Pipette mix | Pipette mix | Pipette mix | 10 | 10 |
| Temperature (°C) | 37 | 37 | 37 | 37 | 37 |