**S1 Methods**

Included is the list of primers for qRT-PCR, genotyping, and list of sequences for the aptamer for tobramycin pulldowns.

**List of qRT-PCR primers**

|  |  |  |  |
| --- | --- | --- | --- |
| Gene | Primer name | Sequence (5’ – 3’) | Amplicon length (bp) |
| *18S*  | 18S qPCR F | TCGCTAGTTGGCATCGTTTATG | 62 |
| *18S* | 18S qPCR R | CGGAGGTTCGAAGACGATCA |  |
| *dnd1* | Dead endforward | AGATGGACTTCCTTCTCCAAGTC | 230 |
| *dnd1* | Dead end reverse | ATCAGCTCATTTCTTGACATTATGG |  |
| *nos1* | Nanos1 forward | GCTCTTCTGTTCAGCTCGAG | 414 |
| *nos1* | Nanos1 reverse | GGCACCTCATGCAGAAGAATAGC |  |
| *ddx4* | Vasaforward | CAACAGCAAGGAAAATATAGTCCA | 192 |
| *ddx4* | Vasa reverse | ATCTAGTTCTGGATGAAGCAGACAG |  |
| *igf2bp3* | Igf2bp3 RT-PCR Ex13 F | ATTGCGCCTGCTGATGGAAT | 207 |
| *igf2bp3* | Igf2bp3 RT-PCR Ex4 R  | CGTTTTGCCTCCTTTACCAATG |  |
| cxcr7b  | cxcr7b F | GAGCACCAAAACACATCGTCA | 109 |
| cxcr7b  | cxcr7b R | TCAGTTCACCCAGTGCATCC |  |
| *mxtx2*  | Mxtx2 Fw | TCTGATCTGCAAGCAACACC | 232 |
| *mxtx2*  | Mxtx2 Rev | TGTCCCAAAATGCAGAATCA |  |
| *camsap3* isoform X4  | camsap3\_X4\_F | CACTCTTACAGCTCCTGGGC | 332 |
| *camsap3* isoform X4 | camsap3\_X4\_R | CCTGTACCGGATCGAGGGTT |  |
| *dazl* | ZdazlF | TACCCGTGTGCCTGATATGTGG | 374 |
| *dazl* | ZdazlR | TGACACTGACCGAGAACTTCGC |  |
| *nanos3* | nos fw | TGGATCTATGGAGACTAGAAACCAG | 246 |
| *nanos3* | nos rev | CAGAAGCTGCAGAACTTTCTCTCT |  |
| *granulito*  | Gra fw | GAAAAACCCGACAACATTATTACAG | 241 |
| *granulito*  | Gra rev | TGTTGTTGTAACTGGTGGAGAAGTA |  |
| *cxcr4a* | cxcr4a f | GGCTTATTACGGACACATCGTC | 340 |
| *cxcr4a* | cxcr4a r | CATGAACCCTCCAAAGTACCAGTC |  |
| *cxcr4b* | cxcr4b f | GGACTTGTGGTGCTTGTGATG | 403 |
| *cxcr4b* | cxcr4b r | GGTAAGTAAGCTCGCAGATGG |  |
| *cxcl12a*  | cxcl12a\_Fw | ATGACCTGATTCTGCTGAGCGTGA | 146 |
| *cxcl12a*  | cxcl12a\_Rev | TGGCTTCACTTGAAGGGTCGATTG |  |
| *sqt/ndr1* | sqt-Ex2-F | GAACCACAGAACTGATGATA | 231 |
| *sqt/ndr1* | sqt-Ex2-R | GCATGGTTTGTTGGAGTGAA |  |
| *gsc* | gsc Ex1 Fw | TGGAAGGATAGGCTACAACAACTAC | 320 |
| *gsc* | gsc Ex2 Rev | GGTATTTCGTTTCTTGAAAAAGGTT |  |
| *ntl/tbxta* | NtlEx3 Fw  | TATTGCAGTCACAGCATATCAGAAT | 270 |
| *ntl/tbxta* | Ntl Ex6 Rev | AAGCTGGAGTATCTCTCACAGTACG |  |

**Genotyping primers**

|  |  |  |
| --- | --- | --- |
| Allele | Primer name | Sequence (5’ – 3’) |
| *igf2bp3∆7* | Igf2bp3 geno/seq PCR F | ATCCCATGGATGAATAAGCTGTACATCGGG |
| *igf2bp3∆7* | Igf2bp3 geno/seq PCR R | GATCATATGGCACACAATCCCTGCTTTGCAT |
| *igf2bp3la010361Tg*  | 5071 | GATGAGGGCCATTGACACGC |
| *igf2bp3la010361Tg* | 5070 | GCAACGCTGCAACTTTCATAGACC |
| *igf2bp3la020659Tg* | 5069 | GTCTCGCTGCTCGTGGCTAGG |
| *igf2bp3la020659Tg* | 5068 | CTTAGGGACAGAGTGCTCCACTTC |
| Transgenic insertion allele common primer | 3’ LTR F22 | AAAGACCCCACCTGTAGGTTTG |

**Aptamers for Tobramycin pull down**

**Aptamer sequence**

ATGCTAGCGGGAGAAGACGACCGACCAGAATCATGCAAGTGCGTAAGATAGTCGCGGGCCGGGAAAAAAAAAAGGCTTAGTATAGCGAGGTTTAGCTACACTCGTGCTGAGCCAAAAAAAAAAGACCGACCAGAATCATGCAAGTGCGTAAGATAGTCGCGGGCCGGGTATGTGCGTCTG

***ndr1/sqt* 5'UTR: aptamer: *ndr1/sqt* 3'UTR**

ACGAGCTTTATTTCAATAACTGCGTGTGGATTATTACCTTGATTTGACATGTTTTCCTGCGGGCTCCTGAGCGTAGTTTTGGCCCTTATGCTAGCGGGAGAAGACGACCGACCAGAATCATGCAAGTGCGTAAGATAGTCGCGGGCCGGGAAAAAAAAAAGGCTTAGTATAGCGAGGTTTAGCTACACTCGTGCTGAGCCAAAAAAAAAAGACCGACCAGAATCATGCAAGTGCGTAAGATAGTCGCGGGCCGGGTATGTGCGTCTGGATCCTATTGGCAAGATGGTCATGAGACACCATGAAGGCATGGTTGTTGCAGAATGCGGCTGCCACTGATTCTTCAAACCCCAAAGGAACTCAACTCTAGCACTTTGGATATGCTCCTTGACCCCAAAAATATGTATTTAAGAAAAACTGCTGTCAATTATTCCCACTTGAAATTATTATGGTTTCCTGCACTGAGGCACCTGGATAACTTGATGCTATTATTGAAAGCTTTGCGTGTTTGCCTTATCTGTAAATAGTAGAGTATGTAAATTACCAAATGTAATAAAATGTTTTCATAATGTTTAAAAAAAAAAAAAAAAAA

**Aptamer: *ndr1/sqt* 3'UTR**

TATGCTAGCGGGAGAAGACGACCGACCAGAATCATGCAAGTGCGTAAGATAGTCGCGGGCCGGGAAAAAAAAAAGGCTTAGTATAGCGAGGTTTAGCTACACTCGTGCTGAGCCAAAAAAAAAAGACCGACCAGAATCATGCAAGTGCGTAAGATAGTCGCGGGCCGGGTATGTGCGTCTGGATCCTATTGGCAAGATGGTCATGAGACACCATGAAGGCATGGTTGTTGCAGAATGCGGCTGCCACTGATTCTTCAAACCCCAAAGGAACTCAACTCTAGCACTTTGGATATGCTCCTTGACCCCAAAAATATGTATTTAAGAAAAACTGCTGTCAATTATTCCCACTTGAAATTATTATGGTTTCCTGCACTGAGGCACCTGGATAACTTGATGCTATTATTGAAAGCTTTGCGTGTTTGCCTTATCTGTAAATAGTAGAGTATGTAAATTACCAAATGTAATAAAATGTTTTCATAATGTTTAAAAAAAAAAAAAAAAAA