

**Supplement 1.** The motif with the highest frequency in the camel ecotype's genome, by type of motif

| Motif Order                                          | 10-mer     | 9-mer     | 8-mer    | 7-mer   | 6-mer  | 5-mer   | 4-mer  | 3-mer | 2-mer  | 1-mer   |
|------------------------------------------------------|------------|-----------|----------|---------|--------|---------|--------|-------|--------|---------|
| <b>A) <i>Camelus dromedarius</i> (Turkmen camel)</b> |            |           |          |         |        |         |        |       |        |         |
| 1                                                    | TGTGTGTGTC | TTTCTTTCT | AAAAAAAC | AAAAAAC | AAAAAC | AAAAC   | AAAC   | AAC   | AC     | T       |
| 2                                                    | ACACACACAG | AAAGAAAGA | ACACACAG | GTTTTTT | TTTTTG | TTTTG   | TTTG   | TTG   | TG     | A       |
| 3                                                    | TCTCTCTCTG | CTTCTTTTC | AAGAAAGG | TTTTTTG | GTTTTT | GTTTT   | TTTA   | TTA   | GT     | C       |
| 4                                                    | GTGTGTGTGC | AAAAAAAC  | GTTTTTTT | AAAAAAG | AAAACA | TGTTT   | AAAT   | TAA   | CA     | G       |
| 5                                                    | ACACACAGAC | TGGTGATGG | CTTCTTTC | AAAAACA | TTTTGT | AAAAG   | AAAG   | AAT   | TA     | -       |
| 6                                                    | ACACACACAT | TTTTTTTTG | TGTGTGTC | TGTTTTT | TGTTT  | AAAAT   | GTTT   | TAT   | AT     | -       |
| 7                                                    | AGAGAGAGAC | TGATGGTGA | AGAAAGAG | TTTGTTT | TTTGTT | CAAAA   | TAAA   | ATT   | TC     | -       |
| 8                                                    | TGTGTGTGCG | CATCATCAC | TCTTCTC  | AAAACAA | TTGTTT | AAACA   | TTTC   | ATA   | AG     | -       |
| 9                                                    | TGTGTGTGTA | GAAAGAAAG | TTTTTTTG | TTTGTTT | AAAAAG | TTTTC   | TATC   | ATC   | GA     | -       |
| 10                                                   | CACACACACG | CACCATCAC | CCTTCCTC | TTGTTTT | CAAAAA | TTTGT   | TGAA   | ATG   | CT     | -       |
| MaSit                                                | 8          | 13        | 39       | 323     | 345    | 1986    | 2385   | 752   | 15901  | 11059   |
| MiSit                                                | 1          | 1         | 1        | 1       | 1      | 1       | 1      | 2     | 19     | 1093    |
| AvSit                                                | 1.1        | 1.3       | 1.6      | 2.5     | 4.7    | 24.7    | 147.2  | 140.2 | 4900.6 | 6137.5  |
| SDSit                                                | 0.605      | 1.206     | 2.322    | 10.171  | 17.965 | 117.090 | 272.0  | 173.5 | 5398.4 | 5648.5  |
| <b>B) <i>Camelus dromedarius</i> (Arabian camel)</b> |            |           |          |         |        |         |        |       |        |         |
| 1                                                    | TGTGTGTGTC | AAAGAAAGA | AAGAAAGG | AAAAAAC | AAAAAC | AAAAC   | AAAC   | TTG   | AC     | T       |
| 2                                                    | ACACACACAG | TTTCTTTCT | AAAAAAAC | GTTTTTT | TTTTTG | TTTTG   | TTTG   | AAC   | TG     | A       |
| 3                                                    | TCTCTCTCTG | CACACACAC | CTTCTTTC | TTTTTTG | AAAACA | GTTTT   | TTTA   | TTA   | GT     | C       |
| 4                                                    | GTGTGTGTGC | GAAAGAAAG | AGAAAGAG | AAAAAAG | GTTTTT | TGTTT   | AAAT   | AAT   | CA     | G       |
| 5                                                    | AAAAAAAC   | CACCACCAT | CTTCCTTT | AAAAACA | TGTTT  | AAAAG   | AAAG   | TAA   | TA     | -       |
| 6                                                    | AGACACACAC | CTTCTTTTC | TCTTCTC  | TGTTTTT | TTTTGT | AAAAT   | TTTC   | TAT   | AT     | -       |
| 7                                                    | AAGAAGAAGA | AAAAAAAC  | ACACACAG | TTTGTTT | TTTGTT | AAACA   | GTTT   | ATT   | TC     | -       |
| 8                                                    | CACACACGCA | TGGTGATGA | GTTTTTTT | CAAAAAA | CAAAAA | CAAAA   | TAAA   | ATA   | AG     | -       |
| 9                                                    | TCTCTCTCTT | ATATATATA | TTTTTTTG | AAAACAA | AAAAAG | TTTTC   | CTTT   | ATC   | GA     | -       |
| 10                                                   | TAATAATAAT | TGGTGATGG | AGAGAGAA | TTTGTTT | TTGTTT | TTTGT   | AAGG   | ATG   | CT     | -       |
| MaSit                                                | 10         | 22        | 55       | 334     | 402    | 2083    | 2413   | 787   | 17226  | 13624   |
| MiSit                                                | 1          | 1         | 1        | 1       | 1      | 1       | 1      | 1     | 13     | 731     |
| AvSit                                                | 1.2        | 1.4       | 1.8      | 2.4     | 4.9    | 24.7    | 168.3  | 135.5 | 5184.0 | 7342.2  |
| SDSit                                                | 0.774      | 1.627     | 3.480    | 10.714  | 20.182 | 123.141 | 303.91 | 183.9 | 5809.8 | 7228.26 |
| <b>C) <i>Camelus bactrianus</i> (Bactrian camel)</b> |            |           |          |         |        |         |        |       |        |         |
| 1                                                    | ACACACACAG | TTTCTTTCT | AAGAAAGG | AAAAAAC | AAAAAC | AAAAC   | AAAC   | AAC   | AC     | T       |
| 2                                                    | TGTGTGTGTC | AAAGAAAGA | AAAAAAAC | GTTTTTT | TTTTTG | TTTTG   | TTTG   | TTG   | TG     | A       |
| 3                                                    | GAGAGAGAGG | CATCACCAC | AGAAAGAG | AAAAAAG | AAAACA | GTTTT   | TTTA   | TTA   | GT     | G       |
| 4                                                    | CTTTCTTTTC | TTCTTTTCT | CTTCTTTC | TTTTTTG | GTTTTT | TGTTT   | AAAG   | TAA   | CA     | C       |
| 5                                                    | AGAAAGAAAG | CACCACCAT | CTTCCTTT | AAAAACA | TTTTGT | AAAAG   | TTTC   | AAT   | TA     | -       |
| 6                                                    | GTGTGTGTGC | CTTCTTTTC | TCTTCTC  | TTTGTTT | TTTGTT | AAAAT   | AAAT   | TAT   | AT     | -       |
| 7                                                    | AAGAAGAAGA | CATCATCAC | AAGGAAGA | TGTTTTT | TGTTTT | CAAAA   | AAGG   | ATT   | TC     | -       |

**Continuous Supplement 1.** The motif with the highest frequency in the camel ecotype's genome, by type of motif

| Motif Order                                          | 10-mer     | 9-mer     | 8-mer    | 7-mer    | 6-mer  | 5-mer   | 4-mer | 3-mer | 2-mer  | 1-mer  |
|------------------------------------------------------|------------|-----------|----------|----------|--------|---------|-------|-------|--------|--------|
| 8                                                    | TGTGTCTGTG | GAAAGAAAG | GTTTTTTT | CAAAAAA  | AAAAAG | AAACA   | GTTT  | ATA   | AG     | -      |
| 9                                                    | AGAGAGAGAC | CACCATCAC | TTTTTTTG | TTTGTGTT | CAAAAA | TTTGT   | TAAA  | ATC   | GA     | -      |
| 10                                                   | GACAGAGAGA | TGATGATGG | TGTGTGTC | AAAACAA  | TATATC | TTTTC   | CTTC  | ATG   | CT     | -      |
| MaSit                                                | 11         | 31        | 67       | 332      | 444    | 2100    | 2581  | 776   | 17414  | 14366  |
| MiSit                                                | 1          | 1         | 1        | 1        | 1      | 1       | 1     | 1     | 27     | 276    |
| AvSit                                                | 1.2        | 1.4       | 1.9      | 2.4      | 5.0    | 25.1    | 169.6 | 137.0 | 4992.7 | 7232.2 |
| SDSit                                                | 0.772      | 1.892     | 3.871    | 10.498   | 21.313 | 123.684 | 318.1 | 177.0 | 5892.4 | 7948.7 |
| <b>D) <i>Camelus ferus</i> (Wild Bactrian camel)</b> |            |           |          |          |        |         |       |       |        |        |
| 1                                                    | TGTGTGTGTC | TTTCTTCT  | AAAAAAAC | AAAAAAC  | AAAAAC | AAAC    | AAAC  | TTG   | AC     | T      |
| 2                                                    | ACACACACAG | AAAGAAAGA | AAGAAAGG | GTTTTTTT | TTTTTG | TTTG    | TTTG  | AAC   | TG     | A      |
| 3                                                    | TCTCTCTCTT | GAAAGAAAG | AGAAAGAG | TTTTTTTG | AAAACA | GTTTT   | TTTA  | TAA   | GT     | C      |
| 4                                                    | AGAAGAAGAA | TGATGGTGA | CTTCTTC  | AAAAAAG  | GTTTTT | TGTTT   | AAAG  | TTA   | CA     | G      |
| 5                                                    | ACACACATAC | CACCACCAT | TGTGTGTC | AAAAACA  | TTTTGT | AAAAG   | TTTC  | AAT   | TA     | -      |
| 6                                                    | TCTCTCTCTG | CTTCTTTC  | TCTTCTC  | TGTTTTT  | TGTTT  | AAAAT   | AAAT  | TAT   | AT     | -      |
| 7                                                    | CACACACACG | TTCTTTCT  | GTTTTTTT | TTTGTGTT | TTTGTT | AAACA   | TAAA  | ATT   | TC     | -      |
| 8                                                    | GTGTGTGTGG | CATCACCAT | AAGGAAGA | TTTGTTT  | AAAAAG | CAAAA   | GTTT  | ATA   | AG     | -      |
| 9                                                    | GAGAGAGAGG | AAAAAAAAC | TTTTTTTG | AAAACAA  | CAAAAA | TTTTC   | CTTC  | ATC   | GA     | -      |
| 10                                                   | CACCCTCACA | CTTCTTCTC | ACACACAG | CAAAAAA  | AGAGAC | TTTGT   | AAGG  | CAA   | CT     | -      |
| MaSit                                                | 9          | 32        | 64       | 364      | 478    | 2073    | 2545  | 800   | 17289  | 14786  |
| MiSit                                                | 1          | 1         | 1        | 1        | 1      | 1       | 1     | 1     | 15     | 316    |
| AvSit                                                | 1.1        | 1.4       | 1.9      | 2.4      | 5.1    | 26.1    | 169.0 | 135.7 | 5033.2 | 7545.5 |
| SDSit                                                | 0.664      | 1.874     | 3.532    | 11.284   | 22.097 | 126.771 | 310.8 | 180.1 | 5919.4 | 8325.4 |

MaSit: maximum number of motives site; MiSit: minimum number of motives site; AvSit: Average number of motives sites; SDSit: Standard Deviation of motives Sites.