

|               | box A                                                                                                                  | anticodon | box B |    |
|---------------|------------------------------------------------------------------------------------------------------------------------|-----------|-------|----|
| LmTRNA-SER.01 | GCAAATG <b>TGGCCGAGTGG</b> TTAAGGCGCCTGCCT <b>GCT</b> AAGCAGGTGTGATCTCACGCGAA <b>GGTTCGAACCC</b> TTCCGTTTGCG           |           |       | 81 |
| LmTRNA-SER.02 | GCAAAC <b>G</b> TGGCCGAGTGGTTAAGGCGCCTGCCT <b>GCT</b> AAGCAGGTGTGATCTCACGCGAA <b>GGTTCGAACCC</b> TTCCGTTTGCG           |           |       | 81 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               | ↑                                                                                                                      |           |       |    |
| TbTRNA-ALA.01 | GGGCGTG <b>TAGCTCAGTGG</b> TAGAGCA <b>T</b> CCGTTT <b>CGC</b> ATACGGAAGGCCTAG <b>GGTTTGATCCC</b> CTACTCGTCCA           |           |       | 72 |
| TbTRNA-ALA.02 | GGGCGTG <b>TAGCTCAGTGG</b> TAGAGC <b>G</b> TCCGTTT <b>CGC</b> ATACGGAAGGCCTAG <b>GGTT<b>C</b>GATCCC</b> CTACTCGTCCA    |           |       | 72 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               |                                                                                                                        | ↑         | ↑     |    |
| TcTRNA-GLU.01 | TCCGGTG <b>TGGTATAGTGG</b> TTAGAACAAGCGG <b>CTC</b> TCACCCGCTAGACCCG <b>GGTTCAATTCC</b> CGGCATCGGAA                    |           |       | 72 |
| TcTRNA-GLU.02 | TCCGGTG <b>TGGTATAGTGG</b> TTAGAACAAGCGG <b>CTC</b> TCACCCGCTAGACCCG <b>GGTT<b>C</b>GAT<b>C</b>CCC</b> CGGCATCGGAA     |           |       | 72 |
| TcTRNA-GLU.03 | TCCGGTG <b>TGGTATAGTGG</b> TTAGAACAAGCGG <b>CTC</b> TCACCCGCTAGACCCG <b>GGTT<b>C</b>GAT<b>C</b>CCC</b> CGGCATCGGAA     |           |       | 72 |
| TcTRNA-GLU.04 | TCCGGTG <b>TGGTATAGTGG</b> TTAGAACAAGCGG <b>CTC</b> TCACCCGCTAGACCCG <b>GGTT<b>C</b>GAT<b>C</b>CCC</b> CGGCATCGGAA     |           |       | 72 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               | ↑                                                                                                                      |           | ↑ ↑   |    |
| TcTRNA-ALA.01 | GGGGATG <b>TAGCTCAGATGG</b> TAGAG <b>T</b> GCCCGCTT <b>AGC</b> ATGCGGGAGGTATTG <b>GGATCGATACC</b> CAACTTCTCCA          |           |       | 73 |
| TcTRNA-ALA.02 | GGGGATG <b>TAGCTCAGATGG</b> TAGAG <b>C</b> GCCCGCTT <b>AGC</b> ATGCGGGAGGTATTG <b>GGATCGATACC</b> CAACTTCTCCA          |           |       | 73 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               | ↑                                                                                                                      |           |       |    |
| TcTRNA-ALA.03 | GGGCGTG <b>TAGCTCAGTGG</b> TAGAGCGCCTGTTT <b>TGC</b> ATACAGGAGGCCTAG <b>GGTTCAAAACCC</b> CTACTCGTCCA                   |           |       | 72 |
| TcTRNA-ALA.04 | GGGCGTG <b>TAGCTCAGTGG</b> TAGAGCGCCTGTTT <b>TGC</b> ATACAGGAGGCCTAG <b>GGTT<b>C</b>GAT<b>C</b>CCC</b> CTACTCGTCCA     |           |       | 72 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               |                                                                                                                        |           | ↑ ↑   |    |
| TcTRNA-ARG.01 | GTCCGTG <b>TGGCTCAATGG</b> AAGAGCATCTGACT <b>ACG</b> GATCAGAGGGTTGCA <b>GGTT<b>C</b>GAG<b>T</b>CCT</b> TGTCACGGATG     |           |       | 72 |
| TcTRNA-ARG.02 | GTCCGTG <b>TGGCTCAATGG</b> AAGAGCATCTGACT <b>ACG</b> GATCAGAGGGTTGCA <b>GGTT<b>C</b>GAG<b>T</b>CCT</b> TGTCACGGATG     |           |       | 72 |
| TcTRNA-ARG.03 | GTCCGTG <b>TGGCTCAATGG</b> AAGAGCATCTGACT <b>ACG</b> GATCAGAGGGTTGCA <b>GGTT<b>C</b>GAA<b>T</b>CCT</b> TGTCACGGATG     |           |       | 72 |
| TcTRNA-ARG.04 | GTCCGTG <b>TGGCTCAATGG</b> AAGAGCATCTGACT <b>ACG</b> GATCAGAGGGTTGCA <b>GGTT<b>C</b>GAA<b>T</b>CCT</b> TGTCACGGATG     |           |       | 72 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               |                                                                                                                        |           | ↑     |    |
| TcTRNA-HIS.01 | GGGAAGA <b>TAGTTCAGTGG</b> CAGAACATCAGATT <b>GTG</b> GCTCTGAATACCCG <b>GGTTCGATAACC</b> CGGTCTTCCCT                    |           |       | 72 |
| TcTRNA-HIS.03 | GGGAAGA <b>TAGTTCAGTGG</b> CAGAACATCAGATT <b>GTG</b> GCTCTGAATACCCG <b>GGTTCGAT<b>T</b>-CCC</b> GGTCTTCCCT             |           |       | 71 |
| TcTRNA-HIS.04 | GGGAAGA <b>TAGTTCAGTGG</b> CAGAACATCAGATT <b>GTG</b> GCTCTGAATACCCG <b>GGTTCGAT<b>T</b>-CCC</b> GGTCTTCCCT             |           |       | 71 |
| TcTRNA-HIS.02 | GGGAAGA <b>TAGTTCAGTGG</b> CAGAACATCAGATT <b>GTG</b> GCTCTGAATACCCG <b>GGTTCGAT<b>T</b>-CCC</b> GGTCTTCCCT             |           |       | 71 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               |                                                                                                                        |           | ↑ ↑   |    |
| TcTRNA-SER.01 | GTCGACA <b>TACCCAAGTGG</b> TTACGGGGTTTGACT <b>TGA</b> AATCAAATGCGATCTCGCGCGCA <b>GGTTCGAACCC</b> TGCTGTGCGACG          |           |       | 81 |
| TcTRNA-SER.02 | GTCG <b>G</b> CA <b>TACCCAAGTGG</b> TTACGGGGTTTGACT <b>TGA</b> AATCAAATGCGATCTCGCGCGCA <b>GGTTCGAACCC</b> TGCTGTGCGACG |           |       | 81 |
|               | *****                                                                                                                  | *****     | ***** |    |
|               | ↑                                                                                                                      |           |       |    |