**Appendix 1:** UTR sequences used in the study

|  |  |  |
| --- | --- | --- |
| **Name** | **UTR** | **Sequence** |
| Rabb | 5’UTR | GGGAAATACACTTGCTTTGACACAACTGTGTTTACTTGCAATCCCCCAAAACAGACAGACGCCACC |
| TPL | 5’UTR | GGGAAATACTCTCTTCGCATCGCTGTCTGCGAGGGCCAGCTGTTGGGCTCGCGGTTGAGGACAAACTCTTCGCGGTCTTTCCAGTACTCTTGGATCGGAAACCCGTCGGCCTCCGAACGGTACTCCGCCACCGAGGGACCTGAGCGAGTCCGCATCGACCGGATCGGAAAACCTCTCGAGAAAGGCGTCTAACCAGTCACAGTCGCAAGAAGCTTAGCATTCCGGTAACTGTTGGTAAAGCCACC |
| RNA-1273(Moderna) | 5’UTR | GGGAAATAAGAGAGAAAAGAAGAGTAAGAAGAAATATAAGACCCCGGCGCCGCCACC |
| EMCV | 3’UTR | GGGGCTGAAGGATGCCCAGAAGGTACCCCATTGTATGGGATCTGATCTGGGGCCTCGGTGCACATGCTTTACATGTGTTTAGTCGAGGTTAAAAAGCGTCTAGGCCCCCCGAACCACGGGGACGTGGTTTTCCTTTGAAAAACACGATGATAATATGGCCACAACCGGCTTCTGCCTAATAAAGAATGTTCAGCTCAA |
| RNA-1273(Moderna) | 3’UTR | GCTGGAGCCTCGGTGGCCTAGCTTCTTGCCCCTTGGGCCTCCCCCCAGCCCCTCCTCCCCTTCCTGCACCGTACCCCCGTGTCTTTGAATAAAGTCTGAGTGGGCGGCA |