

Supplementary Table S2. 5' and 3'UTRs sequences.

Name	UTR	Sequence
FH1	5'UTR	GGGAAATAGCCCAGAAATTCTACCCAAGCTCCCTCGCCAC
GAPDH	5'UTR	GGGAAATAGCTCTCTGCTCCTCCTGTTTCGACAGTCAGCCGCATCTTCTT TTGCGTCGCCAGCCGAGCCACATCGCTCAGCCACC
eEF2	5'UTR	GGGAAATACACATCCGCCGTCGTCGCCGCCATCCTCGGCGCGACTCGC TTCTTTCGGTTCTACCTGGGAGAATCCACCGCCATCCGCCACC
HSPA1A	5'UTR	GGGAAATAACGGCTAGCCTGAGGAGCTGCTGCGACAGTCCACTACCT TTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCAGAGCGAACCTG TGCGGCTGCAGGCACCGGCGCGTCGAGTTTCCGGCGTCCGGAAGGAC CGAGCTCTTCTCGCGGATCCAGTGTTCCGTTTCCAGCCCCCAATCTCAG AGCGGAGCCGACAGAGAGCAGGGAACCGGCGCCACC
H4C2	5'UTR	GGGAAATAGTACCTGGTTTTTGTGTTGTCTGAGTGGTTAGCCACC
HBB	5'UTR	GGGAAATACATTTGCTTCTGACACAACCTGTGTTCACTAGCAACCTCAA ACAGCCACC
C3	5'UTR	GGGAAATACTCCTCCCCATCCTCTCCCTCTGTCCCTCTGTCCCTCTGAC CCTGCACTGTCCAGCCACC
CFL1	5'UTR	GGGAAATAGTTCAGTCGGGTCCCGGCAGCGGCTGCAGCGCTCTCGTCT TCTGCGGCTCTCGGTGCCCTCTCCTTTTCGTTTCCGCCACC
Rabb	5'UTR	GGGAAATACACTTGCTTTGACACAACCTGTGTTTACTTGCAATCCCCCA AAACAGACAGACGCCACC
TPL	5'UTR	GGGAAATACTCTCTTCGCATCGCTGTCTGCGAGGGCCAGCTGTTGGGC TCGCGGTTGAGGACAACTCTTCGCGGTCTTTCCAGTACTCTTGGATC GGAAACCCGTCGGCCTCCGAACGGTACTCCGCCACCGAGGGACCTGA GCGAGTCCGCATCGACCGGATCGGAAAACCTCTCGAGAAAGGCGTCT AACCAGTCACAGTCGCAAGAAGCTTAGCATTCCGGTAACTGTTGGTAA AGCCACC
RNA-1273 (Moderna)	5'UTR	GGGAAATAAGAGAGAGAAAAGAAGAGTAAGAAGAAATATAAGACCCCG GCGCCGCCACC
BNT162b2 (Bionthech)	5'UTR	GAGAATAAACTTGTATTCTTCTGGTCCCCACAGACTCAGAGAGAACCC GCCACC
HBB	3'UTR	GATCCTGGACTGTTTCCTGATAACCATAAGAAGACCCTATTTCCCTAG ATTCTATTTTCTGAACCTTGGAACACAATGCCTACTTCAAGGGTATGG CTTCTGCCTAATAAAGAATGTTTCAGCTCAA
HBB- EMCV	3'UTR	GATCCTGGACTGTTTCCTGATAACCATAAGAAGACCCTATTTCCCTAG ATTCTATTTTCTGAACCTTGGAACACAATGCCTACTTCAAGGGTATGG CTTCTGCCTAATAAAGAATGTTTCAGCTCAAGGGGCTGAAGGATGCCCA GAAGGTACCCCATTTGTATGGGATCTGATCTGGGGCCTCGGTGCACATG CTTTACATGTGTTTAGTCGAGGTTAAAAAGCGTCTAGGCCCCCGAAC CACGGGGACGTGGTTTTCTTTGAAAAACACGATGATAATATGGCCAC AACCGGCTTCTGCCTAATAAAGAATGTTTCAGCTCAA
mtRNR- EMCV	3'UTR	CAAGCACGCAGCAATGCAGCTCAAAAACGCTTAGCCTAGCCACACCCC CACGGGAAACAGCAGTGATTAACCTTTGCAATAAACGAAAGTTTAAC TAAGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCCAGCCACACCC TGGAGCTAGCGGGGCTGAAGGATGCCCAGAAGGTACCCCATTTGTATG GGATCTGATCTGGGGCCTCGGTGCACATGCTTTACATGTGTTTAGTCG AGGTAAAAAGCGTCTAGGCCCCCGAACACGGGGACGTGGTTTTCC TTTGAAAAACACGATGATAATATGGCCACAACCGGCTTCTGCCTAATA AAGAATGTTTCAGCTCAA
mtRNR	3'UTR	CAAGCACGCAGCAATGCAGCTCAAAAACGCTTAGCCTAGCCACACCCC CACGGGAAACAGCAGTGATTAACCTTTGCAATAAACGAAAGTTTAAC

		TAAGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCCAGCCACACCC TGGAGCTAGC
mtRNR- mtRNR	3'UTR	CAAGCACGCAGCAATGCAGCTCAAAACGCTTAGCCTAGCCACACCCC CACGGGAAACAGCAGTGATTAACCTTTGCAATAAACGAAAGTTTAAC TAAGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCCAGCCACACCC TGGAGCTAGCCAAGCACGCAGCAATGCAGCTCAAAACGCTTAGCCTA GCCACACCCCCACGGGAAACAGCAGTGATTAACCTTTGCAATAAACG AAAGTTTAACTAAGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCC AGCCACACCCTGGAGCTAGC
mtRNR- AES	3'UTR	CAAGCACGCAGCAATGCAGCTCAAAACGCTTAGCCTAGCCACACCCC CACGGGAAACAGCAGTGATTAACCTTTGCAATAAACGAAAGTTTAAC TAAGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCCAGCCACACCC TGGAGCTAGCCTCGAGCTGGTACTGCATGCACGCAATGCTAGCTGCC CTTTCCCGTCCTGGGTACCCCGAGTCTCCCCGACCTCGGGTCCCAGG TATGCTCCACCTCCACCTGCCCCACTCACCACTCTGCTAGTTCCAGA CACCTCC
mtRNR- HBB	3'UTR	CAAGCACGCAGCAATGCAGCTCAAAACGCTTAGCCTAGCCACACCCC CACGGGAAACAGCAGTGATTAACCTTTGCAATAAACGAAAGTTTAAC TAAGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCCAGCCACACCC TGGAGCTAGCGATCCTGGACTGTTTCCTGATAACCATAAGAAGACCC ATTTCCCTAGATTCTATTTTCTGAACTGGGAACACAATGCCTACTTCA AGGGTATGGCTTCTGCCTAATAAAGAATGTTTCAGCTCAA
AES-HBB	3'UTR	CTCGAGCTGGTACTGCATGCACGCAATGCTAGCTGCCCCCTTTCCCGTC CTGGGTACCCCGAGTCTCCCCGACCTCGGGTCCCAGGTATGCTCCCA CCTCCACCTGCCCCACTCACCACTCTGCTAGTTCCAGACACCTCCGAT CCTGGACTGTTTCCTGATAACCATAAGAAGACCCATTTCCCTAGATT CTATTTTCTGAACTTGGGAACACAATGCCTACTTCAAGGGTATGGCTT CTGCCTAATAAAGAATGTTTCAGCTCAA
AES-EMCV	3'UTR	CTCGAGCTGGTACTGCATGCACGCAATGCTAGCTGCCCCCTTTCCCGTC CTGGGTACCCCGAGTCTCCCCGACCTCGGGTCCCAGGTATGCTCCCA CCTCCACCTGCCCCACTCACCACTCTGCTAGTTCCAGACACCTCCGG GGCTGAAGGATGCCCAGAAGGTACCCCATTTGTATGGGATCTGATCTGG GGCCTCGGTGCACATGCTTTACATGTGTTTAGTCGAGGTTAAAAAGCG TCTAGGCCCCCGAACCACGGGGACGTGGTTTTCTTTGAAAAACACG ATGATAATATGGCCACAACCGGCTTCTGCCTAATAAAGAATGTTTCAGC TCAA
AES-AES	3'UTR	CTCGAGCTGGTACTGCATGCACGCAATGCTAGCTGCCCCCTTTCCCGTC CTGGGTACCCCGAGTCTCCCCGACCTCGGGTCCCAGGTATGCTCCCA CCTCCACCTGCCCCACTCACCACTCTGCTAGTTCCAGACACCTCCCTC GAGCTGGTACTGCATGCACGCAATGCTAGCTGCCCCCTTTCCCGTCCTG GGTACCCCGAGTCTCCCCGACCTCGGGTCCCAGGTATGCTCCACCT CCACCTGCCCCACTCACCACTCTGCTAGTTCCAGACACCTCC
RNA-1273 (Moderna)	3'UTR	GCTGGAGCCTCGGTGGCCTAGCTTCTTGCCCCTTGGGCCTCCCCCAG CCCCTCCTCCCCTTCTGACCGTACCCCGTGTCTTTGAATAAAGTCT GAGTGGGCGGCA
BNT162b2 (Bionthech)	3'UTR	CTCGAGCTGGTACTGCATGCACGCAATGCTAGCTGCCCCCTTTCCCGTC CTGGGTACCCCGAGTCTCCCCGACCTCGGGTCCCAGGTATGCTCCCA CCTCCACCTGCCCCACTCACCACTCTGCTAGTTCCAGACACCTCCCA AGCACGCAGCAATGCAGCTCAAAACGCTTAGCCTAGCCACACCCCCA CGGGAAACAGCAGTGATTAACCTTTGCAATAAACGAAAGTTTAAC AGCTATACTAACCCCAGGGTTGGTCAATTTTCGTGCCAGCCACACCCTG GAGCTAGC