**NS5A-1:** Null, Treatment-naive

CACCGGTGTGCAAACCCCTCCTACGGGAGGAGGTCGAATTCCAGGTCGGACTCAACCGATACCTGGTCGGGTCACAGCTCCCATGCGAGCCCGAACCGGATGTGGCAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGACGGCCAAGCGTAGGCTGGCCAGGGGGTCTCCCCCCTCCCTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCTTCCTTGAAGGCGACATGTACTACCCATCATGACTCCCCGGACGCCGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAAAATAAGGTAGTAATTTTGGACTCTTTTGAGCCACTCCGGGCGGAGGAGGCCGAGAGGGAAATGTCCGTTCCGGCGGAGATCCTGCGGAGATCCAGGAAGTTCCCTCCGGCGATGCCCATATGGGCACGCCCAGACTACAACCCTCCACTGCTGGAGTCCTGGAAGGACCCAGACTACGTTCCTCCGGTGGTGCACGGGTGCCCATTGCCACCTACCAAG

PVCKPLLREEVEFQVGLNRYLVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFEPLRAEEAEREMSVPAEILRRSRKFPPAMPIWARPDYNPPLLESWKDPDYVPPVVHGCPLPPTK

**NS5A-2:** Null, Treatment-experienced

CGGCGTGCAAACCCCTCCTACGGGAGGAGGTTGTGTTCCAGGTTGGGCTCAACCAGTACCTGGTTGGATCACAGCTCCCATGTGAGCCCGAACCGGACGTAGCAGTGCTTACTTCCATGCTCACCGATCCCTCCCACATCACAGCAGAGGCGGCTAAGCGTAGGCTGGCCAGGGGGTCCCCCCCCTCCTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCTTCCTTGAAGGCGACATGCACTACCAATCATGACTCCCCGGACGCTGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGAAACATCACCCGCGTGGAGTCGGAGAACAAGGTAGTAATTCTGGACTCTTTCGACCCGCTTCGAGCGGAGGAGGATGAGAGGGAAGTGTCCGTTCCGGCGGAGATCCTGCGGAAATCCAGGAAGTTTCCCCCGGCACTGCCCATATGGGCACGTCCGGATTACAACCCTCCATTGATAGAGTCCTGGAAGGACCCGGACTACGTCCCTCCAGTGGTACATGGGTGCCCANTGCCACCTACAAAGG

ACKPLLREEVVFQVGLNQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAEAAKRRLARGsppslasssasqlsapslKATCTTNHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDEREVSVPAEILRKSRKFPPALPIWARPDYNPPLIESWKDPDY

**NS5A-3:** Null, Treatment-experienced

CGGCGTGCAAGCCCCTCCTACGGGAGGAGGTCACATTCCAGGTCGGGCTCAACCAGTACCTGGTTGGGTCACAACTCCCCTGCGAGCCTGAACCTGATGTAGCAGTACTCACTTCCATGCTTACCGATCCTTCCCACATTACAGCAGAGACGGCTAAGCGTAGGCTGGCCAGGGGGTCTCCCCCCTCCTTGGCCAGCTCTTCAGCCAGCCAGTTGTCTGCGCCTTCTTTGAAGGCTACATGCACTACCCACCATGACTCCCCGGACGCTGACCTCATCGAGGCCAACCTCCTATGGCGGCAGGAGATGGGCGGGAACATCACCCGTGTGGAGTCAGAGAATAAGGTAGTAATTTTGGACTCTTTCGACCAGCTTCGAGCGGAGGAGGATGAGAGGGAACCATCCGTTGCGGCGGAGATCCTGCGGAAATCCAGGAAGTTCCCCCCAGCTATGCCCATATGGGCACGGCCGGATTATAACCCTCCTCTGCTAGAGTCCTGGAAGGACCCGGACTACGTCCCTCCGGTGGTTCACGGGTGCCCATTGCCACCTAC

ACKPLLREEVTFQVGLNQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDQLRAEEDEREPSVAAEILRKSRKFPPAMPIWARPDYNPPLLESWKDPDYVPPVVHGCPLPP

**NS5A-4:** Null, Treatment-naive

GGCGTGCAAACCTCTCCTACGGGATGAGGTCACATTCCAGGTCGGGCTCCACCAGTACCCGGTTGGGTCACAGCTCCCATGTGAACCCGAGCCGGATGTGATGGTGCTCACTTCCATGCTCACCGACCCCTCCCACGTTACAGCAGAGACGGCTAAGCGTAGGCTGGCCAGGGGGTCTCCCCCTTCCTTGGCCAGCTCCTCAGCCAGCCAGTTATCTGCGCCCTCCTTGAAGGCGACATGTACTGCCAANCATGACTCCCCAGATGCTGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTANTNCTGGACTCTTTTGACCCGCTTCGGGCGGAGGAAGATGAGAGGGAGGTGTCCGTTGCGGCGGAGATTCTGCGGAAAACCAGAAAATTTCCCCCAGCGCTGCCCATATGGGCGCGCCCGGACTACAATCCACCACTCCTACAACCCTGGAAGGACCCGGATTACGTCCCTCCGGTGGTACACGGGTGCCCATTGCCACCCACTAAGGCC

ACKPLLRDEVTFQVGLHQYPVGSQLPCEPEPDVMVLTSMLTDPSHVTAETAKRRLARGsppslasssasqlsapslKATCTAXHDSPDADLIEANLLWRQEMGGNITRVESENKVVXLDSFDPLRAEEDEREVSVAAEILRKTRKFPPALPIWARPDYNPPLLQPWKDPDYVPPVVHGCPLPPTK

**NS5A-5:** Null, Treatment-naive

ACGCTCCGGCGNGCAAGCCTCTCNTGCGGGATGAGGTCACATTCCAGGTCGGGCTCAACCAATTCCCGGTCGGGTCACAGCTCCCGTGCGAGCCCGAACCGGATGTAACAGTGGTCACCTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGGCGGCTAGGCGTAGGCTGGCCAGGGGATCTCCCCCTTCCTTGGCCAGCTCTTCAGCCAGCCAGTTGTCTGCGCCATCCTTGAAGGCGACATGCACTACCCGTCATGACTCCCCAGACGCTGATCTCATCGAAGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTAGTCCTAGACTCTTTTGACCCGCTTCGAGCGGAGGAGGATGAGAGGGAAGTATCCGTCGCGGCGGAGATCCTGCGGAAGACCAGGAAATTCCCTCCGGCGATACCCATATGGGCACGCCCGGACTACAACCCACCACTGATAGAGTCTTGGAGGGACCCAGACTACGTCCCTCCGGTGGTACACGGGNGCCCATTGCCGCCTGCCAAGAC

PLXRDEVTFQVGLNQFPVGSQLPCEPEPDVTVVTSMLTDPSHITAEAARRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVVLDSFDPLRAEEDEREVSVAAEILRKTRKFPPAIPIWARPDYNPPLIESWRDPDY

**NS5A-6:** Null, Treatment-naive

CGCCGGCATGCAAACCTCTCCTGCGGGATGAGGTCACGTTCCAGGTCGGGCTCAACCAATACGTGGTTGGATCACAGCTCCCATGTGAGCCCGANCCGGATGTATCAGTGCTAACTTCCATGCTCACCGACCCCTCCCACATCACAGCAGAGACGGCTAAGCGTAGGCTGGCCAGGGGGTCCCCCCCCTCCTTGGCCAGTTCTTCAGCTAGCCAGTTGTCTGCGCCTTCCCTGAAGGCGACATGTACCACCCACCATGACTCCCCAGACGCTGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGAAACATCACCCGCGTGGAGTCAGAGAACAAGGTGGTAATTCTGGACTCTTTCGAGCCGCTCCGAGCGGAGGAGGATGAGAGGGAGGTATCCGTTCCGGCGGAGATCCTGCGGAAACCTAGGAANTTCCCCCGGGCAATGCCCATATGGGCACGCCCGGATTACAACCCTCCATTGGTAGAGCCCTGGAAGGACCCAGACTACGTCCCTCCAGTGGTGCACGGGTGTCCATTGCCGCCTACCAA

PACKPLLRDEVTFQVGLNQYVVGSQLPCEPXPDVSVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFEPLRAEEDEREVSVPAEILRKPRXFPRAMPIWARPDYNPPLVEPWKDPDYVPPVVHGCPLPP

**NS5A-7:** Null, Treatment-experienced

CGGTGTGCAAACCCCTCTTACGGGAAGAGGTTNCATTCCAGGTCGGGCTCAACCAATACCTGGTCGGGTCACAGCTCCCATGCGAGCCCGAGCCGGATGTGGCAGTGCTCACCTCCATGCTCACCGATCCTTCCCACATTACAGCAGAGACGGCTAAGCGTAGGTTGGCCAGGGGGTCTCCCCCCTCCTTGGCCAGCTCTTCAGCCAGCCAGTTGTCTGCGCCTTCCTTGAAGGCGACATGCACTACCCATCACGACTCCCCGGACGCTGACCTCATCGAGGCCAACCTCCTGTGGCGACAGGAGATGGGCGGGAATATCACCCGCGTGGAGTCGGAGAACAAGGTAGTGATTCTGGACTCTTTTGACCCGCTTCGAGCGGAGGAGGATGAGAGGGAAGTATCCGTTGCGGCGGAAATCTTGCGGAAATCCAAGAGATTCCCCGCAGCGATGCCCATATGGGCGCGGCCGGATTACAACCCTCCACTGTTAGAGTCCTGGAAGGCCCCGGACTACGTCCCTCCGGTGGTGCACGGGTGCCCGNTGCCACCTACCAAAGCC

CKPLLREEVXFQVGLNQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDEREVSVAAEILRKSKRFPAAMPIWARPDYNPPLLESWKAPDY

**NS5A-8:** Null, Treatment-naive

GGTCGGGCTCAACCAATACCTGGTCGGGTCACAGCTCCCATGTGAACCCGAACCGGATGTAACAGTGCTCACTTCCATGCTCACCGACCCCTCCCATATCACAGCAGAAACGGCTAAGCGCAGGCTGGCCAGGGGGTCTCCCCCCTCCTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCCTCCTTGAAGGCGACGTGCACTACCCGTCATGACTCCCCGGACGCTGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGAAACATCACCCGCGTGGAGTCAGAGAACAAGGTGGTAATTCTAGACTCTTTTGACCCACTTCGAGCAGAAGGGGATGAGAGGGAAGTATCCGTGGCGGCGGAGATCCTGCGGAGAACCAGGAAGTTCCCCCCAGCGCTGCCCGTATGGGCACGCCCGGATTACAACCCACCACTGCTAGAGTCTTGGAAGAGCCCGGACTACGTCCCTCCAGTAGTACACGGCTGTCCATTGCCNCCTACCAANGNC

VGLNQYLVGSQLPCEPEPDVTVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEGDEREVSVAAEILRRTRKFPPALPVWARPDYNPPLLESWKSPDYVPPVVHGCPLPPT

**NS5A-9:** Null, Treatment-naive

GCGTGCAAACCTCTCCTACGGGATGAGGTCACATTCCAGGTCGGGCTCAACCAGTACCCGGTTGGGTCACAGCTCCCATGCGAGCCCGAACCGGATGTAACAGTGGTGACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGACGGCTAAGCGCAGACTGGCCAGGGGGTCTCCCCCCTCCTTGGCCAGCTCTTCGGCTAGTCAACTGTCTGCGCCCTCCTTGAAGGCGACATGTACCGCCTGCCATGACTCCCCAGATGTCGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAACAAGGTGGTAATTCTAGACTCTTTCGACCCGCTTCGAGCGGAAGAGGATGAGAGGGAAGTATCCGTTGAAGCGGAAATCCTGCGGAAAACCAGGAAGTTCCCTCCAGCGTTGCCCGTATGGGCACGCCAGGATTACAACCCACCCCTGTTAGAGTCTTGGAAGACCCCGGGCTACGTCCCCCCAGTGGTGCACGGGTGCCCATTGCCACCTGCCAAGGC

ACKPLLRDEVTFQVGLNQYPVGSQLPCEPEPDVTVVTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTACHDSPDVDLIEANLLWRQEMGGNITRVESENKVVILDSFDPLraeederevsveaeILRKTRKFPPALPVWARQDYNPPLLESWKTPGYVPPVVHGCPLPPAK

**NS5A-11:** Null, Treatment-naive

GGCGTGCAAACCTCTCCTGCGGGATGAGGTCACATTCCAGGTCGGGCTCCACCAATACCCAGTTGGATCACAGCTTCCGTGTGAGCCCGAACCGGATGTAGCAGTGCTCACTTCCATGCTCACCGACCCCCCCCACATTACAGCAGAGACGGCTAAGCGCAGGTTGGCCAGGGGGTCTCCCCCTTCCTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCCTCTTTGAAGGCGACATGCCCTACCAACCACGACTCCCCAGACGCTGACCTCATCGAGGCCAACCTCCTGTGGTGGCGGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTAATTCTGGACTCTTTTGACCCTCTTCGAGTGGAGGAGAATGAGAGGGAAGTGTCCGTTGCGGCGGAGATCCTGCGAAAGACCAGGAAATTCCCCGTAGCGCTGCCCGTGTGGGCGCGCCCGGACTACAATCCACCACTACTAGAGCCTTGGAAAGACCCGGGCTACGTCCCTCCAGTGGTGCACGGGTGTCCGTTACCACCTACCAAGGC

ACKPLLRDEVTFQVGLHQYPVGSQLPCEPEPDVAVLTSMLTDPPHITAETAKRRLARGsppslasssasqlsapslKATCPTNHDSPDADLIEANLLWWREMGGNITRVESENKVVILDSFDPLRVEENEREVSVAAEILRKTRKFPVALPVWARPDYNPPLLEPWKDPGYVPPVVHGCPLPPTK

**NS5A-13:** Null, Treatment-experienced

GGCGTNCAAACCTCTCCTACGGGATGAGGTCACATTCCAGGTCGGGCTCAACCAATACCCGGTTGGGTCACAGCTCCCATGTGAACCCGAACCGGATGTAACAGTGCTCACCTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGACGGCTAAGCGTAGGCTGGCCAGGGGGTCTCCCCCTTCCTTGGCCAGCTCTTCGGCTAGTCAGTTGTCTGCGCCCTCCTTGAAGGCGACATGCACTACCCACCACGACTCCCCGGACGTTGACCTCATTGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAACAAGGTAGTAATTCTGGACTCTTTTGACCCGCTTCGAGCGGAGGAGGATGAGAGGGAGGTGTCCGTTGCGGCGGAGGTCCTGCGGAAGACCAAGAGATTTCCCCCAGCGCTGCCCATATGGGCACGCCCGGACTACAATCCACCACTGCTAGAGTCCTGGAAGGACCCAGACTACGTCCCTCCGGTGGTACACGGGTGCCCATTGCCACCTACCAAGGCC

AXKPLLRDEVTFQVGLNQYPVGSQLPCEPEPDVTVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDVDLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDEREVSVAAEVLRKTKRFPPALPIWARPDYNPPLLESWKDPDYVPPVVHGCPLPPTK

**NS5A-14:** SVR, Treatment-experienced

AGGTCGGGCTCAACCAATACCCGGTTGGGTCACAGCTCCCATGCGAGCCCGAACCGGATGTAGCAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGACGGCTAAGCGTAGGTTGGCCAGGGGGTCTCCACCCTCCTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCTTCCTTGAAGGCAACATGCACCACCCATCATGACTCTCCAGACGCCGACCTTATCGAGGCCAATCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCGGAGAACAAGGTAGTAATCCTGGACTCTTTCGATCCGCTTCGAGCGGAGGAGGATGATAGGGAAGTATCCGTTGCGGCGGAAATCCTGCGGAAAACCAGAAAGTTCCCCGCAGCGATGCCCGTATGGGCACGGCCGGATTACAACCCTCCACTGTTAGAGTCCTGGAAAGACCCGGACTACGTCCCTCCAGTGGTACACGGGTGCCCATTGNNNCCTACTAANG

VGLNQYPVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDDREVSVAAEILRKTRKFPAAMPVWARPDYNPPLLESWKDPDYVPPVVHGCPLXPT

**NS5A-15:** SVR, Treatment-naive

TTCCAGGTCGGGCTCAACCAATACCTGGTCGGGTCACAGCTCCCGTGCGAGCCCGAACCGGATGTAGCAGTGCTTACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGACGGCTAAGCGTAGGTTGGCTAGGGGGTCTCCCCCCTCTTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCTTCCTTGAAGGCGACATGTACTACCCACCATGACTCCCCGGACGCTGACCTCATTGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGTGTGGAGTCAGAGAACAAGGTAGTGATTTTGGATTCTTTCGATCCGATTCACGTGGAGGAGGATGAAAGGGAAGTATCCGTTCCAGCAGAGATCCTGCGGAAGTCCAAAAAATTCCCCAGAGCGATGCCCATATGGGCTCGCCCGGACTACAACCCTCCACTGATAGAGTCCTGGAAAGACCCGGACTACGTCCCTCCGGTGGTGCACGGGTGCCCGTTGCCACCGACCAAGGCA

FQVGLNQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPIHVEEDEREVSVPAEILRKSKKFPRAMPIWARPDYNPPLIESWKDPDYVPPVVHGCPLPPTKA

**NS5A-16:** SVR, Treatment-naive

GTAAACCTNTCCTACGGGATGAGGTCACATTCCAGGTCGGGCTCAANCAGTACCTGGTTGGGTCGCAGCTCCCATGCGAGCCCGAACCGGATGTAGCAGTGCTCACTTCCATGCTTACCGACCCCTCCCACATTACGGCAGAGGCAGCTAGGCGCAGGCTGGCCAGGGGGTCTCCCCCCTCCTTGGCCAGTTCCTCAGCTAGCCAGTTGTCGGCGCCTTCCTTGAAGGCAACATGCACTACCCATCATGACTCCCCGGACGCCGACCTCATTGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGAAACATCACCCGCGTGGAGTCAGAAAATAAGGTAGTAATTCTGGACTCTTTCGACCCGCTTCGAGCGGAGGAGGATGAGCGGGAGGTGTCCGTTCCGGCGGAGATCCTGCGGAAATCCAAGAAGTTCCCCCCGGCGCTGCCCGTATGGGCGCGCCCGGATTATAACCCTCCACTACTAGAGTCCTGGAAGAGCCCGGACTACACCCCTCCAGTGGTACACGGGTGCCCATTACCACCTACCAAGGCCC

PXLRDEVTFQVGLXQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAEAARRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDEREVSVPAEILRKSKKFPPALPVWARPDYNPPLLESWKSPDYTPPVVHGCPLPPTKA

**NS5A-17:** SVR, Treatment-naive

CTCAACCAATATGTGGTTGGGTCACAACTCCCATGTGAGCCCGAACCGGATGTGGCAGTGCTCACTTCCCTGCTCACCGACCCCTCCCACATTACAGCAGAGACAGCAAAGCGCAGGCTGGCCAGGGGGTCCCCCCCCTCCTTGGCCAGCTCATCAGCAAGCCAGCTGTCTGCGCTTTCCTTGAAGCCGACATGCACTACCAATCACGACTCCCCGGACGTTGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTAATTCTGGACTCTTTCGACCCGCTTCGAGTGGAGGAGGATGAGAGGGAACCATCCGTTGAGGCGGAGATCCTACGGAAAACCAGGAAGTTCCCCCCAGCGTTACCCATATGGGCACGCCCTGACTACAACCCTCCACTGCTACAGCCCTGGAAGGACCCGGACTATGCTCCTCCGGTAGTACACGGGTGCCCTTTACAAC

LNQYVVGSQLPCEPEPDVAVLTSLLTDPSHITAETAKRRLARGsppslasssasqlsalslKPTCTTNHDSPDVDLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRVEEDEREPSVEAEILRKTRKFPPALPIWARPDYNPPLLQPWKDPDYAPPVVHGCPL

**NS5A-18:** SVR, Treatment-experienced

CGGCGTGCAAGCCCCTCCTACGGGAGGAGGTCGTATTCCAGGTCGGGCTCAACCAATACCTGGTTGGATCACAGCTCCCATGTGAGCCCGAGCCGGATGTAGCAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACGGCAGAGACGGCTAAGCGTAGGCTGGCCCGAGGGTCTCCACCCTCCTTGGCCAGCTCTTCAGCTAGCCAGCTGTCTGCGCCTTCCTTGAAGGCGACATGCACCACCCGCCATGACTCCCCGGACGCNGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGAAACATCACCCGCGTGGAGTCAGAGAATAAGGTGGTAATCCTGGACTCTTTCGACCCACTCCGAGCGGAGGAGGATGAGAGGGAAGTATCTGTTGAGGCGGAGATCCTGCGGAAAACCAGGAAGTTCCCCCCAGCGATGCCCATATGGGCACGCCCGGATTACAACCCTCCACTGCTAGAGTCCTGGAAGGACCCGGACTACGTCCCTCCGGTGGTACATGGGTGCCCATTGCCGCCTACCAAGGCCC

ACKPLLREEVVFQVGLNQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLraeederevsveaeILRKTRKFPPAMPIWARPDYNPPLLESWKDPDYVPPVVHGCPLPPTKA

**NS5A-20:** SVR, Treatment-naive

TCCGGCGTGCAAGCCCCTCTTACGGGAGGAGGTCACATTCCAGGTCGGGCTCAACCAATACCTGGTTGGGTCACAACTCCCATGCGAGCCCGAACCGGATGTAGCAGTGCTCACCTCCATGCTCACCGACCCCTCCCACATCACAGCAGAGACGGCTGGGCGTAGGCTAGCCAGGGGGTCTCCCCCCTCCTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCACCTTCTCTGAAGGCGACATGCACTACCCATCATGACTCCCCAGACGCCGACCTCATCGAAGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTAGTCTTGGACTCTTTCGACCCGCTTCGAGCGGAGGAGGAAGAGAGGGAACCATCCGTTGCAGCGGAGATCTTGCGGAAAACCAAGAAGTTCCCCCCGGCGATTCCCATATGGGCGCGGCCGGATTACAATCCTCCCCTGCTAGAGTCCTGGAAGAACCCGGACTACGTGCCTCCGGTGGTACACGGGTGCCCACTGCCACCTACCAGGGCCC

PACKPLLREEVTFQVGLNQYLVGSQLPCEPEPDVAVLTSMLTDPSHITAETAGRRLARGsppslasssasqlsapslKATCTTHHDSPDADLIEANLLWRQEMGGNITRVESENKVVVLDSFDPLRaeeeerepsvaaeILRKTKKFPPAIPIWARPDYNPPLLESWKNPDYVPPVVHGCPLPPTRA

**NS5A-22:** SVR, Treatment-naive

CGGCGTGCAAACNTCTCTACGGGATGAGGTCACATTCCAGGTCGGGCTCAACCAGTTCCCGGTTGGGTCACAGCTCCCATGCGAGCCCGAACCGGATGTAACAGTGCTCACCTCCATGCTTACTGACCCCTCCCACATTACAGCAGAGACAGCTAAGCGTAGGCTGGCCAGAGGGTCCCCCCCTTCTTTGGCCAGCTCTTCAGCTAGCCAGTTGTCTGCGCCTTCCTTGAAGGCGACATGCACTACCCGCCATGACTCCCCAGACGCCGACCTCATCGAGGCTAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTAATTCTAGACTCTTTTGAACCGCTTCACGCGGAGGAGGATGAGAGGGAAGTATCCGTAGAGGCGGAGATCCTGCGGAAAACCAGGAAGTTCCCCCGTGCGTTGCCCGTGTGGGCACGCCCGGATTACAACCCACCACTCCTAGAGNCTTGGAAGGACCCAGACTACGTCCCTCCTGTGGTACACGGGTGCCCACTGCCACCCACTAANGCT

LRDEVTFQVGLNQFPVGSQLPCEPEPDVTVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFEPLHaeederevsveaeILRKTRKFPRALPVWARPDYNPPLLEXWKDPDYVPPVVHGCPLPPTXA

**NS5A-25:** SVR, Treatment-naive

GATGGGGTTCAACCAATTCCCGGTTGGGTCACAGCTCCCATGTGAGCCCGAACCGGACGTAACAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGACGGCTAAGCGTAGGCTAGCCAGAGGGTCTCCCCCCTCTTTGGCCAGCTCTTCAGCTAGTCAGCTGTCTGCGCCTTCCTTGAAGGCGACATGCACTACCCGGCATGACTCCCCAGATGCCGACCTCATAGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAAAATAAGGTAGTAATCCTAGACTCTTTTGAGCCGCTTCGAGCGGAGGAGGATGAGAGGGAAGTGTCCGTAGCGGCGGAGATCCTGCGGAAAACCAGGAAATTCCCCGCAGCGATGCCCATGTGGGCGCGCCCGGACTATAACCCACCACTCCTAGAGTCTTGGAAGGACCCAGACTACGTCCCTCCGGTGGTACACGGATGCCCATTGCCACCCACTTCGG

MGFNQFPVGSQLPCEPEPDVTVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFEPLRAEEDEREVSVAAEILRKTRKFPAAMPMWARPDYNPPLLESWKDPDYVPPVVHGCPLP

**NS5A-26:** SVR, Treatment-naive

CCGGTTGGGTCACAACTCCCATGCGAGCCCGAACCGGATGTAACAGTGGTCACCTCCATGCTCACCGACCCCTCCCACATCACAGCAGAGGCTGCTAAGCGTAGGCTGGCCAGAGGGTCTCCCCCNTCCTTGGCCAGCTCTTCAGCTAGTCAGTTGTCTGCGGTTTCTTTGAAGGCGGCATGCACTACCCGTCATGACCCCCCAGATGCTGACCTCATTGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAGCATCACTNGCGTGGAGTCAGAGAACAAGGTGGTGATCCTAGACTCTTTTGATCCGCTTCGAGCGGAGGAGGAGGAGAGGGAAGTGTCCGTGCCGGCGGAGATCCTGCGGAAAACCAGGAGTTTCCCCCGAGCGTTGCCCATATGGGCNCGCCCGGACTACAACCCACCACT

PVGSQLPCEPEPDVTVVTSMLTDPSHITAEAAKRRlargsppslasssasqlsavslkaaCTTRHDPPDADLIEANLLWRQEMGGSITXVESENKVVILDSFDPLraeeeerevsvpaeILRKTRSFPRALPIWARPDYNPP

**NS5A-27:** SVR, Treatment-experienced

CAAACCTCTCCTGCGGGATGAGGTCACATTCCAGGTCGGGCTCAACCAATACCCGGTNGGGTCACAGCTCCCATGTGAACCCGAACCGGATGTAACAGTGGTCACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAAACGGCTAAGCGTAGGCTGGCCAGGGGGTCTCCCCCTTCCTTGGCCAGCTCTTCAGCTAGTCAGCTGTCTGCGCCTTCTTTGAAGGCAACATGCACTACCCATCATGACTCCCCAGANGCTGATCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAATAAGGTAGTAATCTTAGACTCTTTTGACCCGCTTGTAGCGGAGGAGGATGAGAGGGAGGTATCCGTTGCGGCGGAGATCCTGCGGAAAACCAGGAAATTCCCCCCGGCGATACCCATATGGGCACGCCCAGACTACAACCCACCACTGATAGAGTCTTGGAAGGACCCNGACTACGTCCCTCCGGTGGTGCACGGNTGCCCATTGCCACCTGCCAAGACCC

KPLLRDEVTFQVGLNQYPVGSQLPCEPEPDVTVVTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTHHDSPXADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLVAEEDEREVSVAAEILRKTRKFPPAIPIWARPDYNPPLIESWKDPDYVPPVVHGCPLPPAKT

**NS5A-28:** SVR, Treatment-experienced

TGGGTCACAGCTCCCATGCGAGCCCGAACCGGACGTAACGGTGGTCACTTCCATGCTCACTGACCCCTCCCACATCACAGCAGAAACGGCTAAGCGCAGGCTGGCCAGGGGGTCTCCCCCCTCCTTGGCCAGCTCTTCAGCTAGTCAGTTGTCTGCGCCTTCCTTGAAAGCGACATGCACTACCCGTCATGACTCCCCAGACGCTGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAAAATAAGGTAGTAATTCTGGACTCTTTCGACCCGCTCCGAGCGGAGGAGGACGAGAGGGAGGTATCTGTTGCGGCGGAGATCCTACGGAAAACCAGGAAGTTCCCCCGAGCGATACCCATATGGGCACGGCCGGACTACAACCCACCGCTGATAGAGCCTTGGAGGGACCCGGACTACGTCCCTCCGGTGGTGCACTGCACGGGTGCCCATTGCCACCTNGACC

GSQLPCEPEPDVTVVTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDEREVSVAAEILRKTRKFPRAIPIWARPDYNPPLIEPWRDPDYVPPVVH

**NS5A-29:** SVR, Treatment-naive

TACGGGATGAGGTCACGTTCCNGGTCGGGCTCAACCAATTTCCGGTTGGGTCACAGCTCCCATGTGAGCCNGAGCCGGATGTAACAGTGATCACTTCCATGCTCACCGACCCCTCCCACATTACAGCAGAGGCGGCTAAGCGTAGGCTGGCCAGGGGGTCTCCCCCTTCCTTGGCCAGCTCTTCAGCTAGTCAGNTGTCTGCGCNNTCCTTGANNGGGCCATGCACTACCCATCATGACTCCCCNGACGTTGACCTNNTCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGAGGGAACATCACCCGCGTGGAGTCAGAGAACAAGGTGGTAATTCTAGATTCCTTNGACCCGCTTCGAGCGGAGGAGGATGAGAGGGAGGTATCTGTTGCGGCGGAGATCCTACGGAAAACTAGGAAATTCCCCCCAGCAATGCCCATATGGGCACGCCCGGACTACAATCCACCACTGNTNGACTCTTGGAGGGACCCCNACTACGTCCCTCCAGTGGTACANGGGTGCCCATTGCCACCTACCANGGNNC

RDEVTFXVGLNQFPVGSQLPCEPEPDVTVITSMLTDPSHITAEAAKRRLARGsppslasssasqxsaxslXGPCTTHHDSPDVDLXEANLLWRQEMGGNITRVESENKVVILDSXDPLRAEEDEREVSVAAEILRKTRKFPPAMPIWARPDYNPPLXDSWRD

**NS5A-30:** Null, Treatment-naive

TACGGGACGAGGTCACATTCCAGGTCGGGCTCCATCAGTACGCGGTTGGATCGCAGCTTCCATGCGAACCCGAGCCGGATGTGTCAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATCACGGCAGAGGCAGCTAGGCGTAGGCTGGCCAGGGGGTCACCCCCCTCCTTGGCCAGTTCTTCTGCCAGCCAGCTGTCTGCTCCTTCTCTGAAGGCGACATGCACCACCCGTCATGACTCCCCAGATGCCGACCTCATCGAGGCCAACCTCCTGTGGCGGCAAGAGATGGGCGGGAACATCACTCGTGTGGAGTCAGAGAATAAGGTGGTAATTCTGGACTCTTTCGAACCGCTTCGAGCGGAGGAGGACGATAGGGAGGTGTCCGTTCCGGCGGAGATCCTGCGGAAATCCAGGAAGTTTCCCTCAGCGATGCCCATATGGGCACGCCCAGACTACAACCCTCCACTGTTAGAGTCCTGGAAGGACCCGGACTACGTCCCTCCGGTGGTACACGGATGCCCATTGCCACCTGCTAAGACTCC

RDEVTFQVGLHQYAVGSQLPCEPEPDVSVLTSMLTDPSHITAEAARRRLARGsppslasssasqlsapslKATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFEPLRAEEDDREVSVPAEILRKSRKFPSAMPIWARPDYNPPLLESWKDPDYVPPVVHGCPLPPAKT

**NS5A-31:** No treatment

CGGCGTGCAAACCTCTCNTACGGGATGAGGTCACGTTCCAGGTCGGGCTCAACCAATTCCCGGTTGGGTCACAGCTCCCATGTGAGCCCGAACCGGATGTAACAGTGGTCACTTCCATGCTCACTGACCCCTCCCACATCACAGCAGAGACGGCCAAGCGTAGGCTGGCCAGAGGGTCCCCCCCCTCTTTGGCCAGCTCTTCAGCTAGTCAGTTGTCTGCACCCTCTTTGAGGGCGACATGCACTACCCGTCATGACTCCCCGGACGCCGACCTCATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGGCGGAAACATCACCCGTGTGGAGTCAGAGAATAAGGTGGTAATCCTAGACTCTTTTGAACCGCTCCGAGCGGAGGAGGATGAGAGGGAAGTATCCGTACCGGCGGAGATCCTGCGGAAAACCAGGAAGTTCCCCCTGGCGATGCCCATATGGGCGCGCCCGGATTACAACCCACCACTCCTAGAGTCTTGGAAGGACCCAGATTACGTCCCTCCAGTGGTACACGGGTGCCCATTGCCACCTACCAAGG

ACKPLXRDEVTFQVGLNQFPVGSQLPCEPEPDVTVVTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslRATCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFEPLRAEEDEREVSVPAEILRKTRKFPLAMPIWARPDYNPPLLESWKDPDYVPPVVHGCPLPPTK

**NS5A-32:** No treatment

CGGCGTGCAAGCCTCTCNTACGGGACGAGGTCTGCTTCCAGGTCGGCCTCAACCAGTACCCGGTTGGATCACAGCTCCCATGTGAACCCGAACCGGATGTGGCGGTGCTCACTTCCATGCTTACCGACCCCTCCCACATTACAGCGGAGACGGCTAAGCGTAGGCTGGCCAGGGGGTCTCCCCCCTCCCTGGCCAGCTCCTCAGCTAGCCAATTGTCTGCAGTCTCCCTGAAGGCAGCATGCACTACCCGTCATGACTCCCCGGACGCCGACCTCATCGAGGCCAACCTCCTGTGGCGACAGGAGATGGGCGGAAACATCACCCGCGTGGAGTCAGAGAACAAGGTGGTGATTCTGGACTCCTTCGACCCGCTCCGAGCGGAGGAGGATGAGAGGGAAGTTTCCGTTGCGGCGGAAATCCTGCGGAAAACCAGGAAGTTCCCCCGAGCACTGCCTATATGGGCACGCCCGGATTACAATCCCCCACTGCTTGAGCCCTGGAAGGACCCAGACTACGTCCCTCCAATGGTACACGGGTGTCCATTGCCACCTACTAAAG

ACKPLXRDEVCFQVGLNQYPVGSQLPCEPEPDVAVLTSMLTDPSHITAETAKRRlargsppslasssasqlsavslkaaCTTRHDSPDADLIEANLLWRQEMGGNITRVESENKVVILDSFDPLRAEEDEREVSVAAEILRKTRKFPRALPIWARPDYNPPLLEPWKDPDYVPPMVHGCPLPPTK

**NS5A-33:** SVR, Treatment-naive

GCGGGATGAGGTCACATTCCAGGTCGGTTTCAACCAATACGTGGTTGGATCACAGCTCCCATGCGAGCCCGAACCGGATGTAACGGTGCTCACTTCCATGCTCACCGACCCCTCCCATATTACAGCGGAGACGGCTAAGCGTAGGCTGGCTAGGGGATCCCCTCCCTCCTTGGCCAGCTCTTCAGCTAGCCAGTTGTCCGCGCCTTCTCTCAAGGCTACATGCGCCACCCGTCATGACTGCCCAGACGCTGACCTCATTGAGGCCTGCCTCCTGTGGCGGCAGGAGATGGGCGGGAACATCACCCGCGTGGAGTCAGAGAGTAAGGTGGTAATTCTAGACTCTTTCGACCCGCTTCGAGCGGAGGAGGACGAGAGGGAAGTATCCGTTCCGGCGGAGATCCTGCGGAAATCCAGGAAATTCCCCCCGGCAATGCCCATATGGGCAAGGCCGGATTACAACCCTCCACTGATAGAGTCCTGGAAGGACCCGGACTACGTCCCTCCAGTGGTACACGGGTGCCCATTGNNACCTACCAAGGCC

RDEVTFQVGFNQYVVGSQLPCEPEPDVTVLTSMLTDPSHITAETAKRRLARGsppslasssasqlsapslKATCATRHDCPDADLIEACLLWRQEMGGNITRVESESKVVILDSFDPLRAEEDEREVSVPAEILRKSRKFPPAMPIWARPDYNPPLIESWKDPDYVPPVVHGCPLXPTKA