Seq 1: GAATTGGGCCCTCTAGATGCATGCTCGAGCGGCCGCCAGTGTGATGGATATCTGCAGAATTCGGCTTGGATCCGGGCTGCAGGAATTCGATATCAAGCTTGGCAAATATACTGAAATAGGTGTTGACATTATTCCATCGAACTAGTTAACTAGTACGAAAGTTCACATGAAGAGGGTATCTAAAATGGCAGCGACATTTGCATTACACGGTTGGTGGCGCACTTCCTGATAGCGGGCGGTGCCAAGCTTATCGATACCGTCGACCTCGAATTCGGAGGAAACAAAGATGAGTAAAGGAGAAGAACTTTTCACTGGAGTTGTCCCAATTCTTGTTGAATTAGATGGTGATGTTAATGGGCACAAATTTTCTGTCAGTGGAGAGGGTGAAGGTGATGCAACATACGGAAAACTTACCCTTAAATTTATTTGCACTACTGGAAAACTACCTGTTCCATGGCCAACACTTGTCACTACTTTCACTTATGGTGTTCAATGCTTTTCAAGATACCCAGATCATATGAAACGGCATGACTTTTTCAAGAGTGCCATGCCCGAAGGTTATGTACAGGAAAGAACTATATTTTTCAAAGATGACGGGAACTACAAGACACGTGCTGAAGTCAAGTTCGAAGGTGATACCCTTGTTAATAGAATCGAGTTAAAAGGTATTGATTTTAAAGAAGATGGAAACATTCTTGGACACAAATTGGAATACAACTATAACTCACACAATGTATACATCATGGCGGACAAACAAAAGAATGGAATCAAAGTTAACTTCAAAATTAGACACAACATTGAAGATGGAAGCGTTCAACTAGCAGACCATTATCAACAAAATACTCCAATTGGCGATGGCCCTGTCCTTTTACCAGACAACCATTACCTGTCCACACAATCTGCCCTTTCGAAAGATCCCAACGAAAAGAGAGACCACATGGTCCTTCTTGAGTTTGTAACAGCTGCTGGGATTACACATGGCATGGATGAACTATACAAATAAATGTCCAGACTTCCAATTCCCGGATCCAAGCCGAATTCCAGCACACTGGCGGCCGTTACTAGGGATCCGAGCTCGGTACCAAGCTGGCG

**ORF Protein:**

MSKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLKFICTT

GKLPVPWPTLVTTFTYGVQCFSRYPDHMKRHDFFKSAMPEGYVQERTIFF

KDDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNV

YIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHY

LSTQSALSKDPNEKRDHMVLLEFVTAAGITHGMDELYK

seq 2a:

GAATTGGGCCCTCTAGATGCATGCTCGAGCGGCCGCCAGTGTGATGGATATCTGCAGAATTCGGCWYGRGWTGCACATGGCTTCTCTCTTGGCTTCCTCCTCCCACCCTAGAAGCACCAACATGGTGGCTGCCACCACGACCATTCGCACCCCCTCTTTCCCTCCCTGTTTTCCTAGAAATACACAAGTTTCTAAAGTTGGAAAGCAATACCACCACCTTACTACTAGAGTGGCATGCAGAGCTACAAATGGTGACCAACAAAATATTAATAATGGACAAAATCCTCAAGGGAAGTTCGATAGAAGAGATGTACTCCTTGGCCTCGGAGGCATGTATGGTGCTGCCAATCTCTGCAATGACCCGTTTGCGCTGGCAGATCCGGTATCCGCGCCGGAATTAACACTGTGTAGCGWGGCAGACCTCCCAGCAGGCGCACTTCCAGTCAATTGCTGCCCACCTACATCCAAGAAGATCAAAGACTTTGTTTTACCTAGCCAAAACACTCCCTTACGTGTTAGGCCTGCGGCTCATTTGGTTGACAACGATTACATAGCCAAATATAACAAAGGCATTGAGCTCGTGAAGTCCCTCCCGGCTGATGACCCGCGTAGTTTCACCCAACAAGCTAATGTCCACTGCGCCTACTGCGACGGGGCTTACACACAAGTCGGTTTTCCAGACTTGAGCCTCCAAGTTCACGAATGTTGGCTCTTCTTTCCATTCCATCGCTACTACGTGTACTTCTTCGAGAAAATATTGGGCAAGTTGATTGGCGATCCCACCTTTGCCTTGCCATTCTGGAACTGGGACTCCCCTCCTGGTATGCAATTGCCATCCTTGTATGCTGTCTCCAACTCAGCAATCTATGACCCTCTGCGCAACGCCAACCACCAGCCACCGACAATAATTGATCTTGACTACGGCGAGACCAGCGAGTCAACGACAACAACAGATCAAGTACCTAGCAACCTCAAAATCATGTACCGGCAGATGGTGTCCGGCGCCAAGAACCCTACGCTATTTTTCGGCAGCCCTTATCGGGCTGGGGATGAACCTGACCCAGGTGCTGGCACAATCGAGAGCACTCCCCACAATAATATCCACCTATGGACCGGTGACGACACCCAACCTAATATCGAGAACATGGGGAACTTCTACTCGGCCGGTAGAGATCCAATCTTTTTCGCTCACCATTCCAATGTGGACCGAATGTGGACCATATGGAAAACATTAGGAGGGAAACGAAAAGATATCACAGACCCMGATTGGYTSAAYWSCWSMTTTTTCTTCTATGATGAAAATGCAGATCCTGTTCGTGTTAAGGTTAAGGACTGCGTTGATAACACTAAGCTGAGATATGTTTATCAAGATGTGGAGATTCCATGGCTAAAGACCAAGCCGACACCTCGTAAATCTAGGGTTAAGAAAGTAGCGAAAGCCTTTCCAGCCGGACATGGTGGTGTAGCACAAGCGGCTGAAACATCGAGCGTTAAGTTTCCGATTGTTTTGGACAAGGTGATAAGTACTGTTGTCGCTAGGCCCAAGAAATCGAGGAGCAAGAAAGAAAAGGACGACGAGGAAGAAGTTTTAGTGATTGAGGKTGATTGAGGTTGAGAGAGATATTCCAGTGAAGTTTGATGTTTTTATCAACGACGAGGATGACGCACCAACCGGGCCTGGAATTAACACGGAGTTCGCAGGAAGCTTTGTCAGCGTGCCGCAGCAGAAGCAGACGAAGAAGAAGAAAACTTACCTGAGGATAGGAATYTCTGACTTGTTGGAAGACTTGGGAGCTGAAGATGATGACTCCGTGGTGGTGACTTTGGTACCCCGGTTCGGGAAAGGGAAGGCCATCATTGGTGGGATCAAGATTGTGCTTATCGGTTGARMTYWGRAAGYSGWATTSCRGTCRYMCTKGCRKYMKTWRCYARKRWTMYGRGCWMRKTACYTAARMTRRYRATTTAATGCTGCGGTCGCAGTGCCTTTTCAAAAAAAAAAAAAAAAAAAAAAAA