CLAIMS

1. A composition comprising:

a) a positive amplification control (PAC) plasmid comprising:

a unique artificial plasmid-specific sequence (UAPS), wherein the UAPS comprises SEQ ID NO: 10, wherein the UAPS does not recognize or anneal to any natural parvovirus sequence; and

a target amplification polynucleotide sequence (TAP), wherein the TAP comprises a parvovirus NS-1 sequence, wherein the parvovirus NS-1 sequence is at least 88% identical to any one of SEQ ID NOs: 9 and 12-37;

b) a rodent parvovirus specific forward oligonucleotide primer;

c) a rodent parvovirus specific oligonucleotide detection probe;

d) an artificial oligonucleotide detection probe used to detect the UAPS of the PAC plasmid, wherein the artificial oligonucleotide detection probe comprises a nucleic acid sequence of SEQ ID NO: 3 (5'-TGTCGATGGCGAATGGCTA-3');

e) a rodent parvovirus specific reverse oligonucleotide primer; and

f) a buffer.

2. The composition of claim 1, wherein the parvovirus NS-1 sequence comprises any one of SEQ ID NOs: 9 and 12-37.

3. The composition of claim 1, wherein the parvovirus NS-1 sequence comprises SEQ ID NO: 37.

4. The composition of claim 1, wherein the PAC further comprises a nucleic acid extraction control (NEC) nucleotide sequence comprising an M13 bacteriophage nucleotide sequence comprising SEQ ID NO: 8.

5. The composition of claim 1, further comprising

g) an M13 specific forward oligonucleotide primer;
h) an M13 specific oligonucleotide detection probe; and
i) an M13 specific reverse oligonucleotide primer.

6. The composition of claim 1, wherein the PAC plasmid comprises the nucleic acid sequence of SEQ ID NO: 11.

7. The composition of claim 1, wherein

the rodent parvovirus specific forward oligonucleotide primer comprises a nucleic acid sequence of SEQ ID NO: 1;

the rodent parvovirus specific oligonucleotide detection probe comprises a VIC fluorophore, a minor groove binding quencher (MGBNFQ), and a nucleic acid sequence of SEQ ID NO: 2;

the artificial oligonucleotide detection probe comprises a VIC fluorophore, a non-fluorescent quencher BHQ, and the nucleic acid sequence of SEQ ID NO: 3;

the rodent parvovirus specific reverse oligonucleotide primer comprises a nucleic acid sequence of SEQ ID NO: 4;

the M13 specific forward oligonucleotide primer comprises a nucleic acid sequence of SEQ ID NO: 5;

the M13 specific oligonucleotide detection probe comprises a Cy5 fluorophore, a BHQ-2 quencher, and a nucleic acid sequence of SEQ ID NO: 6; and

the M13 specific reverse oligonucleotide primer comprises a nucleic acid sequence of SEQ ID NO: 7.

8. An artificial nucleotide sequence comprising a nucleic acid sequence of SEQ ID NO: 3 (5'-TGTCGATGGCGAATGGCTA-3'), a fluorophore, and a quencher.

9. The artificial nucleotide sequence of claim 8, wherein the artificial nucleotide sequence does not anneal to any naturally occurring parvovirus in a quantitative polymerase chain reaction (qPCR) assay.

10. The artificial nucleotide sequence of claim 8, wherein the fluorophore is selected from the group of fluorophores having an excitation wavelength between 495 nm to 680 nm, inclusively, and an emission wavelength between 515 nm to 710 nm, inclusively.

11. The artificial nucleotide sequence of claim 8, wherein the fluorophore has an excitation wavelength of 495 nm and an emission wavelength of 520 nm.

12. The artificial nucleotide sequence of claim 11, wherein the fluorophore is FAM.

13. The artificial nucleotide sequence of claim 8, wherein the quencher is selected from the group of dyes having an absorbance peak between 430 nm to 672 nm, inclusively.

14. The artificial nucleotide sequence of claim 13, wherein the quencher is BHQ-1.

15. The artificial nucleotide sequence of claim 8, wherein the fluorophore is attached at or near the 5-prime end of the artificial nucleotide sequence and the quencher is attached at or near the 3-prime end of the artificial nucleotide sequence.

16. The artificial nucleotide sequence of claim 8, wherein the fluorophore is attached at or near the 3-prime end of the artificial nucleotide sequence and the quencher is attached at or near the 5-prime end of the artificial nucleotide sequence.

17. The artificial nucleotide sequence of claim 8, wherein the artificial nucleotide sequence hybridizes to a unique artificial plasmid-specific (UAPS) sequence of a positive amplification control (PAC) plasmid, wherein the UAPS comprises SEQ ID NO: 10.

18. The artificial nucleotide sequence of claim 17, wherein the PAC plasmid further comprises

i) a target amplification polynucleotide (TAP) sequence, wherein the TAP comprises a parvovirus NS-1 sequence, wherein the parvovirus NS-1 sequence comprises SEQ ID NO: 9 or any one of SEQ ID NOs: 12-37, and

ii) a nucleic acid extraction control (NEC) nucleotide sequence, wherein the NEC comprises an M13 bacteriophage nucleotide sequence comprising SEQ ID NO: 8.

19. The artificial nucleotide sequence of claim 18, wherein the PAC plasmid comprises the nucleic acid sequence of SEQ ID NO: 11.

20. The artificial nucleotide sequence of claim 18, wherein the PAC plasmid comprises binding sites that hybridize to M13 oligonucleotide primers.