

CLAIMS:

1. A positive amplification control plasmid (PAC) comprising a unique artificial plasmid-specific sequence (UAPS), and a target amplification polynucleotide sequence (TAP), wherein said TAP comprises a bacterial or viral nucleotide sequence.
2. The PAC of claim 1, wherein said UAPS does not recognize or anneal to any natural parvovirus.
3. The PAC of claim 2, wherein said UAPS comprises SEQ ID NO. 10.
4. The PAC of claim 1, wherein said TAP comprises an NS-1 nucleotide sequence.
5. The PAC of claim 1, further comprising a nucleic acid extraction control (NEC) nucleotide sequence.
6. The PAC of claim 5, wherein said NEC comprises an M13 bacteriophage nucleotide sequence.
7. The PAC of claim 6, wherein said M13 bacteriophage nucleotide sequence is a M13K07 nucleotide sequence.
8. The PAC of claim 7, wherein said M13K07 nucleotide sequence comprises SEQ ID NO. 8.
9. The PAC of claim 1, further comprising one or more oligonucleotide primers.
10. The PAC of claim 9, wherein said one or more oligonucleotide primers is selected from the group consisting of a forward oligonucleotide primer, a reverse oligonucleotide primer, and a combination thereof.
11. The PAC of claim 9, wherein said one or more oligonucleotide primers are rodent parvovirus oligonucleotide primers.

12. The PAC of claim 11, wherein said rodent parvovirus oligonucleotide primers is selected from the group consisting of a forward oligonucleotide primer, a reverse oligonucleotide primer, and a combination thereof.
13. The PAC of claim 6, further comprising M13 oligonucleotide primers.
14. The PAC of claim 13, wherein said M13 oligonucleotide primers is selected from the group consisting of a forward oligonucleotide primer, a reverse oligonucleotide primer, and a combination thereof.
15. A composition comprising a unique detection probe nucleotide sequence (UDP), wherein said UDP is used to detect UAPS.
16. The composition of claim 15, wherein said UDP comprises SEQ ID NO. 3.
17. The composition of claim 15, wherein said UDP further comprise at least one fluorophore and at least one quencher.
18. The composition of claim 17, wherein said fluorophore is selected from the group of fluorophores having an excitation wavelength anywhere between 495 nm to 680 nm, inclusively, and an emission wavelength anywhere between 515 nm to 710 nm, inclusively.
19. The composition of claim 18, wherein said fluorophore has an excitation wavelength of 495 nm and an emission wavelength of 520 nm.
20. The composition of claim 19, wherein said fluorophore is FAM.
21. The composition of claim 17, wherein said quencher is selected from the group of dyes having an absorbance peak anywhere between 430 nm to 672 nm, inclusively.
22. The composition of claim 21, wherein said quencher is BHQ-1.
23. The composition of claim 17, wherein said fluorophore is attached to the 5-prime end of said UDP and said quencher is attached to the 3-prime end of said UDP.

24. The composition of claim 4, wherein said NS-1 sequence is selected from the group consisting of minute virus of mice prototype strain (MVMp), minute virus of mouse immunosuppressive strain (MVMi), minute virus of mouse Cutter strain (MVMc); mouse parvovirus 1b (MPV-1b), mouse parvovirus 1a (MPV-1a), mouse parvovirus 1c (MPV-1c), hamster parvovirus (HaPV), Toolan's parvovirus (H-1), Kilham rat virus (KRV), rat parvovirus 1a, rat minute virus, and Umass strain of Rat virus L (RV-Umass).

25. A method of detecting a biological contaminant comprising the steps of:

- a. combining (i) a test sample, (ii) a UDP, (iii) a TAP forward oligonucleotide primer, (iv) a TAP reverse oligonucleotide primer, (v) a TAP detection probe and (vi) a DNA polymerase;
- b. subjecting the combination of step (a) to polymerase chain reaction (PCR); and
- c. monitoring said PCR for production of a signal.

26. The method of claim 25, wherein said UDP further comprises at least one fluorophore and at least one quencher.

27. The method of claim 26, wherein said fluorophore is selected from the group of fluorophores having an excitation wavelength anywhere between 495 nm to 680 nm, inclusively, and an emission wavelength anywhere between 515 nm to 710 nm, inclusively.

28. The method of claim 25, wherein said TAP detection probe further comprises at least one fluorophore and at least one quencher.

29. The method of claim 28, wherein the production of TAP is monitored at about 533 nm to about 580 nm.

30. The method of claim 25, wherein step (a) further comprises: (vii) a NEC specific forward oligonucleotide primer, (viii) a NEC specific reverse oligonucleotide primer, and (ix) a NEC specific oligonucleotide detection probe.
31. The method of claim 30, wherein said NEC is a M13 bacteriophage.
32. The method of claim 30, wherein said NEC specific oligonucleotide detection probe comprises a cyanine dye.
33. The method of claim 32, wherein said cyanine dye is Cy5 having an absorbance maximum of about 650 nm and an emission maximum of about 670 nm.
34. The method of claim 25, wherein step (a) comprises PAC instead of said test sample.
35. The method of claim 25, wherein step (a) comprises buffer instead of said test sample.
36. The method of claim 26, wherein a signal is indicative of a false positive.
37. The method of claim 28, wherein a signal is indicative of contamination unless there is a concomitant UDP signal.
38. The method of claim 32, wherein a signal is indicative of oligonucleotide extraction from a reaction vessel.
39. A positive amplification control plasmid (PAC) comprising a unique artificial plasmid-specific sequence (UAPS), and a target amplification polynucleotide sequence (TAP), wherein said TAP comprises a bacterial or viral nucleotide sequence, and a nucleic acid extraction control (NEC) nucleotide sequence.