

We claim:

1. A composition comprising a sequence-specific primer set selected from the group consisting of Set-1 through Set-15.
2. The composition of claim 1, wherein the sequence-specific primer set is selected from the group consisting of: Set-5, Set-11, Set-13, Set-14 and Set-15.
3. The method of claim 2, wherein the sequence-specific primer set is Set-15.
4. The composition of claim 1, further comprising a probe.
5. The composition of claim 4, wherein the probe comprises a label.
6. The composition of claim 5, wherein the probe is a labeled polynucleotide.
7. The composition of claim 6, wherein the labeled polynucleotide comprises a sequence selected from the group consisting of: nucleotides 6-22 of SEQ ID NO: 73, nucleotides 5-24- of SEQ ID NO: 74, nucleotides 3-21 of SEQ ID NO: 75, and nucleotides 3-24 of SEQ ID NO: 76.
8. The composition of claim 6, wherein the labeled polynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 73 through SEQ ID NO: 76.
9. The composition of claim 6, wherein the label is a fluorophore.
10. The composition of claim 9, wherein the fluorophore is covalently attached to a terminus of the polynucleotide.
11. The composition of claim 4, wherein the probe is a molecular beacon comprising a fluorophore, a quencher, and a polynucleotide.
12. The composition of claim 11, wherein the molecular beacon comprises a sequence selected from the group consisting of SEQ ID NO: 73 through SEQ ID NO: 76.
13. The composition of claim 12, wherein the polynucleotide sequence consists of SEQ ID NO: 75.

14. A method of detecting *Neisseria gonorrhoeae* in a test sample, the method comprising:
- extracting nucleic acid from the test sample;
 - amplifying a target sequence by reacting the nucleic acid extracted in step (a) with a reaction mixture comprising a strand displacement DNA polymerase and a sequence-specific primer set, wherein said sequence-specific primer set is selected from the group consisting of Set-1 through Set-15; and
 - detecting the presence or absence of an amplified product of step (b), wherein the presence of said amplification product is indicative of the presence of *Neisseria Gonorrhoeae* in the test sample.
15. The method of claim 14, wherein the amplification step is performed for less than 15 minutes.
16. The method of claim 14, wherein the amplification step is performed for less than ten minutes.
17. The method of claim 14, wherein the reaction mixture further comprises a reverse transcriptase.
18. The method of claim 14, wherein detecting the presence or absence of the amplification product comprises hybridizing the amplified product with a probe comprising a polynucleotide attached to a label.
19. The method of claim 18, wherein the labeled polynucleotide comprises a sequence selected from the group consisting of: nucleotides 6-22 of SEQ ID NO: 73, nucleotides 5-24- of SEQ ID NO: 74, nucleotides 3-21 of SEQ ID NO: 75, and nucleotides 3-24 of SEQ ID NO: 76.
20. The method of claim 19, wherein the labeled polynucleotide comprises a sequence selected from the group consisting of: SEQ ID NO: 73 through SEQ ID NO: 76.
21. The method of claim 14, wherein the sequence-specific primer set is selected from the group consisting of: Set-5, Set-11, Set-13, Set-14 and Set-15.
22. The method of claim 21, wherein the sequence-specific primer set is Set-15.

23. The method of claim 14, wherein *Neisseria Gonorrhoeae* is present in the test sample at a concentration of ≤ 100 CFU/mL.
24. The method of claim 23, wherein *Neisseria Gonorrhoeae* is present in a test sample at a concentration of ≤ 10 CFU/mL.
25. The method of claim 24, wherein *Neisseria Gonorrhoeae* is present in the test sample at a concentration of ≤ 10 CFU/mL and the amplification reaction is performed for less than 15 minutes.
26. A kit comprising a composition according to claim 1.
27. The kit of claim 26, further comprising a strand displacement polymerase.
28. The kit of claim 27, further comprising a reverse transcriptase.