

# NGM Detect™ PCR Amplification Kit (200 Reactions)

Catalog Number A31832

Pub. No. 100044086 Rev. A

**Note:** For safety and biohazard guidelines, see the “Safety” appendix in the *NGM Detect™ PCR Amplification Kit User Guide* (Pub. No. 100044085). Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

## Important guidelines

- Thaw reagents completely before first use. To avoid freeze/thaw cycles, store components at 2°C to 8°C after first use.
- Isolate reagents from any source of contaminating DNA, especially from previously amplified PCR products and the NGM Detect™ Allelic Ladder.
- The primer set and allelic ladder contain primers that are labeled with light-sensitive dyes. Protect the primer set and allelic ladder from light; do not leave them exposed on the laboratory bench.
- To obtain optimal results, follow the procedures in the *NGM Detect™ PCR Amplification Kit User Guide* (Pub. No. 100044085).

## Contents and storage

Contents	Cat. No. A31832 200 reactions	Storage
NGM Detect™ Master Mix Contains MgCl <sub>2</sub> , dATP, dGTP, dCTP, and dTTP, bovine serum albumin, enzyme, and 0.05% sodium azide in buffer and salt.	2 tubes, 0.75 mL	-25°C to -15°C on receipt. 2 to 8°C after first use for up to 6 months or up to the expiration date stated on the kit (whichever comes first).
NGM Detect™ Primer Set Contains locus-specific 6-FAM™, VIC™, TED™, TAZ™, and SID™ dye-labeled and unlabeled primers in buffer. The primers amplify the STR loci D2S1338, SE33, D16S539, D18S51, TH01, D12S391, D3S1358, FGA, vWA, D21S11, D1S1656, D2S441, D8S1179, D19S433, D22S1045, D10S1248, the sex-determining markers; Y indel and Amelogenin and two internal PCR control markers; IQCS and IQCL.	2 tubes, 0.25 mL	-25°C to -15°C on receipt. 2 to 8°C after first use for up to 6 months or up to the expiration date stated on the kit (whichever comes first). Store protected from light.

Contents	Cat. No. A31832 200 reactions	Storage
NGM Detect™ Allelic Ladder Contains the following amplified alleles: <ul style="list-style-type: none"> <li>• 6-FAM™ dye (blue): IQCS 1, 2; D2S1338 11–28; SE33 4.2, 6.3, 8, 9, 11–20, 20.2, 21, 21.2, 22.2, 23.2, 24.2, 25.2, 26.2, 27.2, 28.2, 29.2, 30.2, 31.2, 32.2, 33.2, 34.2, 35, 35.2, 36–39, 42; IQCL 1, 2.</li> <li>• VIC™ dye (green): D16S539 5, 8–15; D18S51 7, 9, 10, 10.2, 11–13, 13.2, 14, 14.2, 15–27; TH01 4–9, 9.3, 10–13, 13.3; D12S391 14–19, 19.3, 20–27.</li> <li>• TED™ dye (yellow): D3S1358 9–20; FGA 13–30, 30.2, 31.2, 32.2, 33.2, 42.2, 43.2, 44.2, 45.2, 46.2, 47.2, 48.2, 50.2, 51.2</li> <li>• TAZ™ dye (red): Y indel 1, 2; Amelogenin X, Y; vWA 11–24; D21S11 24, 24.2, 25–28, 28.2, 29, 29.2, 30, 30.2, 31, 31.2, 32, 32.2, 33, 33.2, 34, 34.2, 35, 35.2, 36–38; D1S1656 9–14, 14.3, 15, 15.3, 16, 16.3, 17, 17.3, 18, 18.3, 19.3, 20.3; D2S441 8–11, 11.3, 12–17.</li> <li>• SID™ dye (purple): D8S1179 5–19; D19S433 6–12, 12.2, 13, 13.2, 14, 14.2, 15, 15.2, 16, 16.2, 17, 17.2, 18.2, 19.2; D22S1045 7–20; D10S1248 8–19.</li> </ul>	1 tube, 0.05 mL	–25°C to –15°C on receipt. 2 to 8°C after first use up to the expiration date stated on the kit. Store protected from light.  <b>IMPORTANT!</b> The allelic ladder contains PCR products. Do not amplify. To avoid contamination, store the allelic ladder separate from the other kit components and unamplified DNA.
DNA Control 007 Contains 0.1 ng/μL human male genomic DNA in 0.05% sodium azide and buffer. The profile of this male DNA is IQCS 2; D2S1338 20, 23; SE33 17, 25.2; IQCL 2; D16S539 9, 10; D18S51 12, 15; TH01 7, 9.3; D12S391 18, 19; D3S1358 15, 16; FGA 24, 26; Y indel 2; Amelogenin X, Y; vWA 14, 16; D21S11 28, 31; D1S1656 13, 16; D2S441 14, 15; D8S1179 12, 13; D19S433 14, 15; D22S1045 11, 16; D10S1248 12, 15.	1 tube, 0.3 mL	–25°C to –15°C on receipt. 2 to 8°C after first use up to the expiration date stated on the kit.

## Required materials not supplied

Unless otherwise indicated, all materials are available through [thermofisher.com](http://thermofisher.com).

Item	Cat. No.
GeneScan™ 600 LIZ™ Size Standard v2.0, 2 tubes, 200 μL each <b>IMPORTANT!</b> Do not use GeneScan™ 350 ROX™, GeneScan™ 500 ROX™, or GeneScan™ 500 LIZ™ Size Standards with this kit.	4408399
Low-TE buffer (10 mM Tris, 0.1 mM EDTA, pH 8.0)	Teknova T0223

## Performance characteristics

The NGM Detect™ kit is developed and manufactured by Thermo Fisher Scientific. We test each lot of kits to ensure that the kits perform according to specifications.

Each Applied Biosystems™ NGM Detect™ PCR Amplification Kit contains reagents that are optimized to amplify and type 500 pg of DNA Control 007.

The recommended range of input sample DNA is approximately 0.25 ng to 0.75 ng of human DNA. However, we have successfully typed samples containing less than 125 pg of human DNA.

Follow the protocol in the *NGM Detect™ PCR Amplification Kit User Guide* (Pub. No. 100044085) to collect and analyze data on the instruments and software that is supported for use with this kit.

## Limited product warranty

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**Revision history:** Pub. No. 100044086

Revision	Date	Description
A	21 September 2016	New document

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