

# Reagents for Human Identity Testing

Norgen Biotek supplies a complete range of reagents and kits for human identity testing.

## AT NORGEN BIOTEK, WE OFFER:



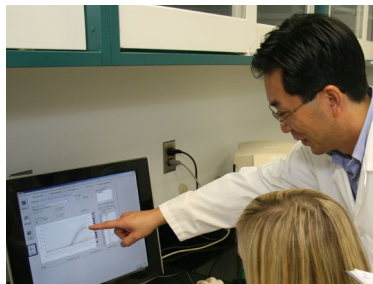
### RESEARCH AND DEVELOPMENT

At Norgen Biotek, we research, develop and manufacture all our products. We are not a distributor.



### YOUR BEST SOURCE

We are the best source for all of your sample preparation, reagent and biochemical needs.



### PERSONALIZED SUPPORT

Our customers receive personalized support directly from product developers.



### THE SAMPLE PREP EXPERTS

We are Norgen Biotek—The Sample Preparation Experts

[www.norgenbiotek.com](http://www.norgenbiotek.com)

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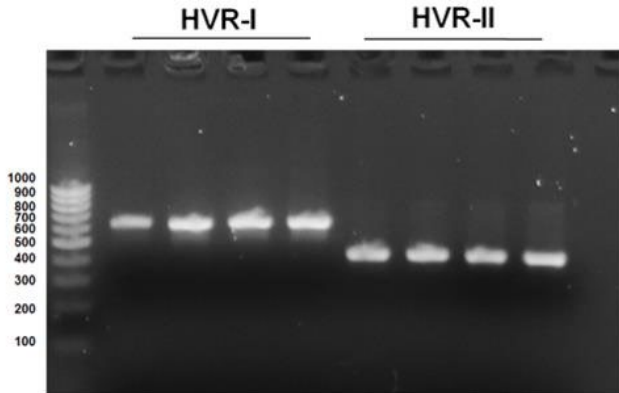
ISO 13485:2003, ISO 9001:2008, ISO 15189:2012 Registered

# Mitochondrial DNA Hypervariable Region I and II PCR Amplification Kit



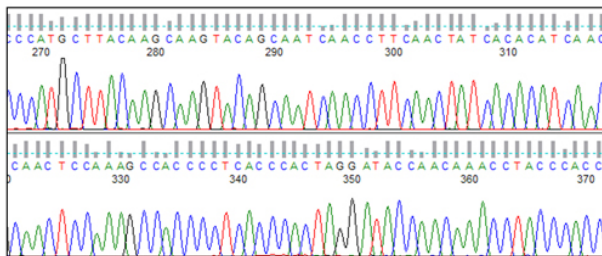
## Features

- ✓ Complete kit with Master Mix, PCR primers and Sequencing Primers
- ✓ Procedure can be accomplished with standard PCR machines—no special equipment required
- ✓ Fully compatible with Norgen's range of sample preparation kits for saliva, blood, urine and more...



**Figure 1. All-Inclusive PCR and Sequencing Kit for Rapid Amplification of Human mtDNA HVR-I and HVR-II.**

Norgen's Mitochondrial DNA Hypervariable Region I and II PCR Amplification Kit allows for the rapid amplification of PCR products that could be used in sequencing to determine maternal ancestry. Five of 50 µL PCR reactions were loaded on a 1X TAE 2 % Agarose DNA gel with 10 µL of Norgen's PCR Sizer 100 bp DNA Ladder (Cat# 11400) as a MW Marker (150V for 30 minutes). The expected molecular weight of the PCR product is 610 bp for HVR-I and 415 bp for HVR-II, respectively.



**Figure 2. High Quality Sequencing of Human mtDNA HVR-I and HVR-II Regions.**

Norgen's Mitochondrial DNA Hypervariable Region I and II PCR Amplification Kit provides optimized primers for rapid sequencing of the human mtDNA HVR-I and HVR-II. Coupled with Norgen's PCR Purification Kit (#14400), the PCR templates and the provided sequencing primers can be used with Applied Biosystems® BigDye® Terminator v1.1 Cycle Sequencing Kit to generate high quality sequence of both regions.

## Kit Contents

- Norgen's 2x PCR Master Mix
- 10x mtDNA HVR-I PCR Primer Mix
- 10x mtDNA HVR-II PCR Primer Mix
- Nuclease-Free Water
- Positive Control DNA
- mtDNA HVR-I Forward Sequencing Primer
- mtDNA HVR-I Reverse Sequencing Primer
- mtDNA HVR-II Forward Sequencing Primer
- mtDNA HVR-II Reverse Sequencing Primer
- 0.5M EDTA (pH 8.0)
- Product Insert

## PCR Amplification Kit

Mitochondrial DNA Hypervariable Region I and II PCR Amplification Kit

Cat. #

52800

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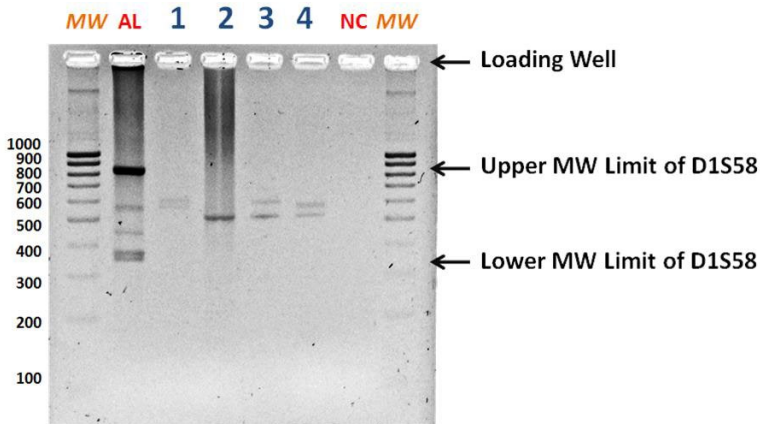
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ISO 13485:2003, ISO 9001:2008, ISO 15189:2012 Registered

# Short Tandem Repeat (D1S58) Detection Kit



All-in-One, Ready-to-use  
First Strand cDNA Synthesis Kits



**Figure 1. Rapid Allele Determination (Short Tandem Repeat numbers) of Human D1S58 Locus by End-Point PCR.**

Norgen's Short Tandem Repeat (D1S58) Detection Kit (for Academic Instructions) allows for the rapid amplification of PCR products that could be used in distinguish the different alleles (different STR number) of the human D1S58 locus. Next, 20  $\mu$ L PCR reactions (samples 1 to 4), one specific for detecting wild-type VKORC1 and one specific for detecting mutated VKORC1, were loaded on a 1X TBE 2 % Agarose DNA gel with 10  $\mu$ L of Norgen's PCR Sizer 100 bp DNA Ladder (Cat# 11400) as a MW Ladder (150V for 30 minutes). An D1S58 Allelic Ladder with DNA bands of known STR repeat number is also provided. The expected molecular weight range of the PCR product is of 354 bp to 850 bp, corresponding to 13 to 44 units. The MW Ladder as well as the D1S58 Allelic Ladder can be used to construct a standard curve to determine the number of STR units present in each test individual's PCR product(s).

## Features

- ✓ Complete kit with Master Mix and PCR primers, Agarose and Electrophoresis Running Buffer
- ✓ Procedure can be accomplished with standard PCR machines—no special equipment required
- ✓ Provides hands-on experience with STR analysis
- ✓ Also available bundled with Norgen's Saliva DNA Collection, Preservation and Isolation Kits
- ✓ Additional educational materials available

## Kit Contents

2X PCR Master Mix with Dual Dye

10x D1S58 STR Detection Primer Mix

Nuclease-Free Water

Positive Control DNA

D1S58 Allelic Ladder

PCR Sizer 100 bp DNA Ladder

50X TBE

High Resolution Agarose

Product Insert

## PCR Amplification Kit

Short Tandem Repeat (D1S58) Detection Kit

Cat. #

54000

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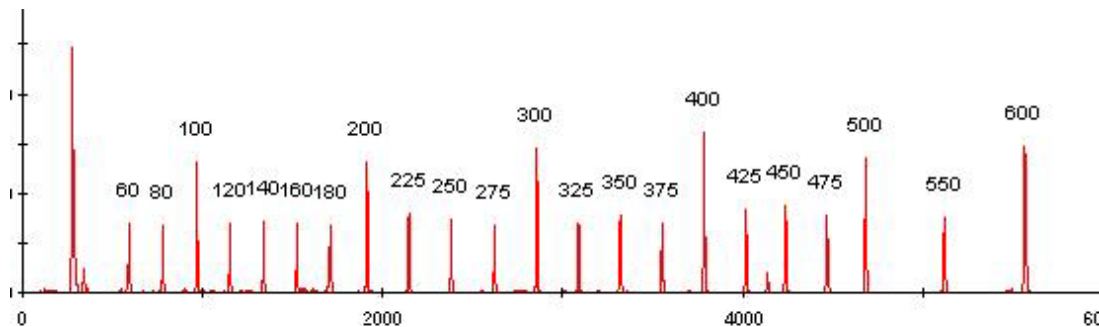
ISO 13485:2003, ISO 9001:2008, ISO 15189:2012 Registered

# Internal Lane Standard (60bp - 600bp, ROX) for ABI Genetic Analyzer (Cat# 53210)



## Features

- ✓ High quality ready-to-use double-stranded DNA ladder derived by recombinant technology for precise size and mass determination in various fluorescence-detection instruments including different models of Applied Biosystems® PRISM® and Genetic Analyzers.
- ✓ 22 discrete bands, ranging from 60bp to 600bp.
- ✓ The ladder is asymmetrically labelled with ROX that can be detected by excitation at 576 nm and fluorescent emission at 597 nm.
- ✓ Compatible with products for fragment analysis including Promega PowerPlex® 16 System.



**Figure 1. Internal Lane Standard (60bp – 600bp, ROX) resolved on an Applied Biosystems® 3130XL Genetic Analyzer.** Fragments are evenly spaced at 20-, 25- or 50-base intervals for precise size determination.

## Ordering Information

PCR Amplification Kit	Cat. #
Internal Lane Standard (60bp - 600bp, ROX) for ABI Genetic Analyzer (150 µL volume)	53210

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