

Selection of Reagents for Real-Time PCR

Overview

The goal of this document is to assist researchers in selecting the appropriate Applied Biosystems TaqMan® or SYBR® Green reagents to use for Real-Time PCR applications. These reagents have been designed for use with the ABI PRISM® 7000 and 7700 Sequence Detection Systems, the Applied Biosystems 7900HT and 7500 Fast Real-Time PCR Systems and the Applied Biosystems 7300 or 7500 Real-Time PCR Systems, and can be used for gene expression and/or SNP genotyping applications.

The decision as to which kit to use is dependent on the experimental strategy employed. Factors such as starting material (DNA, or RNA), one-step vs. two-step RT-PCR, and choice of TaqMan® or SYBR® Green reagent chemistries, will need to be considered in order to select the appropriate reagent strategy. Applied Biosystems offers an extensive array of reagent choices, configurations, controls, etc. This document will assist you in gaining a better understanding of this array of choices and how to select the best reagent or kit for your needs. The following product areas will be presented:

TaqMan® and SYBR® Green Real-Time PCR Reagents

Pre-formulated TaqMan® Assays:

TaqMan® Genomic Assays, TaqMan® Custom Genomic Assays and TaqMan® Pre-Developed Assay Reagents (PDARs) for both Gene Expression and SNP Genotyping Applications.

Other TaqMan® Reagents:

For additional SDS / Real-Time PCR Reagents, such as TaqMan® Reagents Starter Kits, TaqMan® Endogenous Control Reagents, TaqMan® Cytokine Reagents and TaqMan® RNase P Reagents (for detection of human genomic DNA), please consult our [on-line Store](#). Information on our [TaqMan® Low Density Arrays](#) is also available.

This document is divided into sections by type of input nucleic acid template and kit type. It also includes pre-formulated assays and recommendations on the reagents to use with these assays. All colored text are active links. Clicking on any link in the table below will take you to that specific section in this guide, and clicking on a specific kit title will take you to a brief description of that particular kit. In addition, you will find links to Product Information, Order Information, Protocols, and kit contents.

TaqMan® and SYBR® Green Real-Time PCR Reagents

Starting Material/ Experimental Strategy	Kit Options	Kit P/N
RNA	High-Capacity cDNA Archive Kit	4322171
	TaqMan® Reverse Transcription Reagents	N808-0234
DNA	TaqMan® Universal PCR Master Mix	4304437
	TaqMan® Universal PCR Master Mix, No AmpErase® UNG	4324018
	TaqMan® Fast Universal PCR Master Mix, No AmpErase® UNG*	4352042
	TaqMan® PCR Core Reagents Kit	N808-0228
	Power SYBR® Green PCR Master Mix	4367659
	SYBR® Green PCR Master Mix	4304886
	SYBR® Green PCR Core Reagents	4309155
RT-PCR		
One-Step RT-PCR	TaqMan® One-Step RT-PCR Master Mix Reagents Kit	4309169
	TaqMan® EZ RT-PCR Core Reagents	N808-0236
One-Step or Two-Step RT-PCR	TaqMan® Gold RT-PCR Reagents	N808-0232
	TaqMan® Gold RT-PCR Reagents with Controls	N808-0233
	Power SYBR® Green RT-PCR Reagents	4368711
	SYBR® Green RT-PCR Reagents	4310179

Preformulated TaqMan® Assays

Assay Types
Gene Expression
TaqMan® Gene Expression Assays
TaqMan® Custom Gene Expression Assays
TaqMan® Pre-Developed Assay Reagents
SNP Genotyping
TaqMan® SNP Genotyping Assays
TaqMan® Custom SNP Genotyping Assays
TaqMan® Pre-Developed Assay Reagents

*To be used only with an Applied Biosystems Fast Real-Time PCR System

TaqMan® and SYBR® Green Real-Time PCR Reagents

RNA

1. High-Capacity cDNA Archive Kit

[Order Information](#)

[Product Information](#)

Part Number: 4322171

Protocol P/N: [4322169](#)

Kit Description:

The High-Capacity cDNA Archive Kit contains all components necessary for the quantitative conversion of up to 10µg of total RNA to single stranded cDNA in a single 100µl reaction. This kit contains enough reagents for 200 reverse transcription reactions at 100 µl each. This kit can be used in conjunction with all Applied Biosystems Real-Time PCR reagent kits.

Input sample template should be total RNA and free of RNase activity*.

Kit Components:

- 10X RT Random Primers (2 x 1 ml)
- 10X RT Buffer (2 x 1 ml)
- 25X dNTPs (1 ml)
- MultiScribe™ MuLV Reverse Transcriptase (50U/µl, 1 ml).

***Note:** If you suspect that the RNA preparation contains RNase activity, add [RNase Inhibitor](#) to the reverse transcription reaction at a final concentration of 1.0 U/µl.

[Top](#)

2. TaqMan® Reverse Transcription Reagents

[Order Information](#)

[Product Information](#)

Part Number: N808-0234

Protocol P/N [402876](#)

Note: The procedure on how to use this kit can be found in any of the reagent protocols used for real-time PCR. For example, the TaqMan® Gold RT-PCR Reagents kit protocol contains usage information on the TaqMan® Reverse Transcriptase Reagents.

Kit Description:

TaqMan® Reverse Transcription Reagents provide all the necessary components to perform the reverse transcription of RNA to cDNA, and can be used in conjunction with all AB DNA PCR reagent kits. For two-step RT-PCR, random hexamers, oligo (dT)₁₆, or sequence-specific reverse primers can be used. The choice of primers for reverse transcription is best made after experimentally evaluating all three priming systems. This kit contains enough reagents for 200 reverse transcription reactions when the reactions are set up at 10 µl each. A 10 µl reaction volume is sufficient to transcribe up to 200 ng of total RNA. For amounts >200 ng, scale up the reaction proportionally.

Input sample template should be RNA.

Kit Components:

- MultiScribe™ Reverse Transcriptase (100 µl)
- RNase Inhibitor (2 x 100 µl)
- dNTP Mixture (1 ml)
- Oligo d(T)₁₆ (100 µl)
- Random Hexamers (100 µl)
- 10X RT Buffer (1.5 ml)
- MgCl₂ Solution (1.5 ml)

[Top](#)

DNA

3. TaqMan® Universal PCR Master Mix

[Order Information](#)

[Product Information](#)

Part Number: 4304437

Protocol P/N [4304449](#)

Kit Description:

TaqMan® Universal PCR Master Mix combines the components of the TaqMan® PCR Core Reagents Kit with additional key components in one easy-to-use premix. The mix is optimized for real-time PCR analysis, and contains all reagents necessary for the 5' nuclease assay. This kit contains enough reagents for 200 reactions at 50 µl each.

Input sample template should be gDNA or cDNA

Kit Components:

Supplied at 2X concentration.

AmpliTaq Gold® DNA Polymerase

AmpErase® UNG*

dNTPs with dUTP

Passive Reference 1

Optimized buffer components

*For additional information about [AmpErase® UNG](#).

[Top](#)

4. TaqMan® Universal PCR Master Mix, No AmpErase® UNG

[Order Information](#)

[Product Information](#)

Part Number: 4324018

Protocol P/N [4304449](#)

Kit Description:

TaqMan® Universal PCR Master Mix, No AmpErase® UNG combines the components of the TaqMan® PCR Core Reagents Kit with additional key components in one easy-to-use premix. The mix is optimized for real-time PCR analysis, and contains all reagents necessary for 5' nuclease assays. This kit does not contain AmpErase® UNG. *For additional information about [AmpErase® UNG](#).

This kit contains enough reagents for 200 reactions at 50 µl each.

Input sample template should be gDNA or cDNA.

Kit Components:

Supplied at 2X concentration.

AmpliTaq Gold® DNA Polymerase

dNTPs with dUTP

Passive Reference 1

Optimized buffer components

[Top](#)

5. TaqMan® Fast Universal PCR Master Mix, No AmpErase® UNG

[Order Information](#)

[Product Information](#)

Part Number: 4352042

Protocol P/N [4351891](#)

Kit Description:

The TaqMan® Fast Universal PCR Master Mix, No AmpErase® UNG is optimized for 5' nuclease assays using TaqMan® probes and contains a hot-start DNA Polymerase that does not require an activation step. The mix contains all reagents necessary for 5' nuclease assays. It does not contain AmpErase® UNG*, however the kit is compatible with this carry-over prevention system. This kit contains two tubes of 1.25 ml each sufficient for 250 20-µl PCR reactions (for a total of 500 20-µl PCR reactions).

Input sample template should be gDNA or cDNA.

Kit Components:

Supplied at 2X concentration.

Hot Start DNA Polymerase

dNTPs with dUTP

Passive Reference 1

Optimized buffer components

*For additional information about [AmpErase® UNG](#).

When to Use:

This TaqMan® Fast reagent can only be used in conjunction with an Applied Biosystems Fast Real-Time PCR System, such as the Applied Biosystems 7900HT Fast Real-Time PCR System.

[Top](#)

6. TaqMan® PCR Core Reagents Kit

[Order Information](#)

[Product Information](#)

Part Number: N808-0228

Protocol P/N: [403823](#)

Kit Description:

The TaqMan® PCR Core Reagents Kit provides the components needed to perform the 5' nuclease assay using TaqMan® probes. Individual components are provided to offer flexibility in assay set-up. This kit contains enough reagents for 200 reactions at 50 µL each.

Input sample template should be gDNA or cDNA.

Kit Components:

250 U AmpliTaq Gold® DNA Polymerase (50 µl)

100 U AmpErase® UNG (100 µl)

dUTP (320 µl)

dATP (320 µl)

dCTP (320 µl)

dGTP (320 µl)

10X TaqMan® Buffer A (1.2 ml),

25 mM MgCl₂ Solution (3.0 ml).

[Top](#)

7. Power SYBR® Green PCR Master Mix

[Order Information](#)

[Product Information](#)

Part Number: 4367659

Protocol P/N: [4367218](#)

Kit Description: This new, easy-to-use premix is optimized for real-time PCR analysis using SYBR® Green Dye and contains enough reagents for 200 reactions at 50 µl each.

Input sample template should be gDNA or cDNA.

Kit Components:

Supplied at a 2X concentration.

SYBR® Green I dye

AmpliTaq Gold® DNA Polymerase, LD

dNTPs with dTTP/dUTP

Passive Reference I

Optimized buffer components.

[Top](#)

8. SYBR® Green PCR Master Mix

[Order Information](#)

[Product Information](#)

Part Number: 4304886

Protocol P/N: [4310251](#)

Kit Description:

This easy-to-use premix is optimized for real-time PCR analysis using SYBR® Green I dye and contains enough reagents for 200 reactions at 50 µl each.

Input sample template should be gDNA or cDNA.

Kit Components:

Supplied at a 2X concentration.

SYBR® Green I dye

AmpliTaq Gold® DNA Polymerase

dNTPs with dUTP

Passive Reference 1

Optimized buffer components.

[Top](#)

9. SYBR® Green PCR Core Reagents Kit

[Order Information](#)

[Product Information](#)

Part Number: 4309155

Protocol P/N: [4304965](#)

Kit Description:

Each reagent is supplied in individual tubes to allow the optimization of each assay. While AmpErase® UNG is included in this kit, its use is optional. This kit contains enough reagents for 200 reactions at 50 µl each.

Input sample template should be gDNA or cDNA.

Kit Components:

250 U AmpliTaq Gold® DNA Polymerase (50 µl)

100 U AmpErase® UNG (100 µl)

dNTP Mix with dUTP (1 ml)

10X SYBR® Green PCR Buffer (1.5 ml)

25 mM MgCl₂ Solution (3.0 ml).

[Top](#)

RT-PCR

One-Step RT-PCR

10. TaqMan[®] One-Step RT-PCR Master Mix Reagents Kit

[Order Information](#)

[Product Information](#)

Part Number: 4309169

Protocol P/N: [4310299](#)

Kit Description:

An easy-to-use solution which minimizes assay setup time and contains all components needed for TaqMan[®] one-step RT-PCR applications. This kit contains enough reagents for 200 reactions at 50 µl each.

Input sample template should be RNA.

Kit Components:

Contains two components:

Vial 1 (1 x 5 ml):

AmpliTaq Gold[®] DNA Polymerase mix (2X)

dNTPs with dUTP

Passive Reference 1 (ROX[™] dye),

Optimized buffer components.

Vial 2 (250 µl):

RT enzyme mix (40X) contains MultiScribe[™] Reverse Transcriptase and RNase Inhibitor.

[Top](#)

11. TaqMan[®] EZ RT-PCR Core Reagents

[Order Information](#)

[Product Information](#)

Part Number: N808-0236

Protocol P/N [402877](#)

Kit Description:

TaqMan[®] EZ RT-PCR Core Reagents combine *rTth* DNA polymerase with the fluorogenic 5' nuclease assay in a one-step RT-PCR format. The *rTth* DNA Polymerase functions as both a thermoreactive reverse transcriptase and a thermostable DNA polymerase. This kit has the benefit of high-temperature reverse transcription, which can prove beneficial when amplifying targets in regions of RNA with abundant secondary structure. This kit contains enough reagents for 200 reactions at 50 µL each.

Input sample template should be RNA

Kit Components:

1000 U *rTth* DNA Polymerase (2 x 200 µl)

100 U AmpErase[®] UNG (100 µl)

dUTP (320 µl)

dATP (320 µl)

dCTP (320 µl)
dGTP (320 µl)
5X TaqMan[®] EZ Buffer (2 x 1 ml)
25 mM Mn(OAc)₂ (2 x 1 ml).

[Top](#)

One-Step or Two-Step RT-PCR

12. TaqMan[®] Gold RT-PCR Kit

[Order Information](#)

[Product Information](#)

Part Number: N808-0232

Protocol P/N: [402876](#)

Kit Description:

The TaqMan[®] Gold RT-PCR Kit provides all the necessary components, along with the flexibility in assay set-up, to perform both one- and/or two-step RT-PCR. For two-step RT-PCR, random hexamers, oligo (dT)₁₆, or sequence-specific reverse primers provide flexibility for cDNA synthesis. This kit contains enough reagents for 200 reactions with 10µl Reverse Transcription Reactions, and 50 µl PCR reactions.

Input sample template should be RNA.

Kit Components:

TaqMan[®] Reverse Transcription Reagents

MultiScribe[™] Reverse Transcriptase (100 µl)

RNase Inhibitor (2 x 100 µl)

dNTP Mixture (1 ml)

Oligo d(T)₁₆ (100 µl)

Random Hexamers (100 µl)

10X RT Buffer (1.5 ml)

MgCl₂ Solution (1.5 ml).

TaqMan[®] PCR Core Reagents Kit

250 U AmpliTaq Gold[®] DNA Polymerase (50 µl),

100 U AmpErase[®] UNG (100 µl)

dUTP (320 µl)

dATP (320 µl)

dCTP (320 µl),

dGTP (320 µl)

10X TaqMan[®] Buffer A (1.2 ml)

25 mM MgCl₂ (3.0 ml) Solution.

[Top](#)

13. TaqMan[®] Gold RT-PCR Kit with Controls

[Order Information](#)

[Product Information](#)

Part Number: N808-0233

Protocol P/N: [402876](#)

Kit Description:

The TaqMan[®] Gold RT-PCR Kit provides all the necessary components, along with the flexibility in assay set-up, to perform both one- and/or two-step RT-PCR. For two-step RT-PCR, random hexamers, oligo (dT)₁₆, or sequence-specific reverse primers provide flexibility for cDNA synthesis. The kit also contains a human GAPDH primer and probe set and human control RNA. This kit contains enough reagents for 200 reactions with 10µl Reverse Transcriptase Reactions, and 50 µl PCR reactions.

Input sample template should be RNA.

Kit Components:

TaqMan[®] Reverse Transcription Reagents

MultiScribe[™] Reverse Transcriptase (100 µl)

RNase Inhibitor (2 x 100 µl)

dNTP Mixture (1 ml)

Oligo d(T)₁₆ (100 µl)

Random Hexamers (100 µl)

10X RT Buffer (1.5 ml)

MgCl₂ Solution (1.5 ml).

TaqMan[®] GAPDH Control Reagents (Human)

Human Control RNA 100 µl (50ng/ul)

GAPDH Probe (JOE[™]/TAMRA[™] dyes), 100 µl (5 µM)

GAPDH Forward Primer, 100 µl (10µM)

GAPDH Reverse Primer, 100 µl (10µM).

TaqMan[®] PCR Core Reagents Kit

250 U AmpliTaq Gold[®] DNA Polymerase (50 µl)

100 U AmpErase[®] UNG (100 µl),

dUTP (320 µl)

dATP (320 µl)

dCTP (320 µl)

dGTP (320 µl)

10X TaqMan[®] Buffer A (1.2 ml)

25 mM MgCl₂ (3.0 ml) Solution.

[Top](#)

14. Power SYBR® Green RT-PCR Reagents

[Order Information](#)

[Product Information](#)

Part Number: 4368711

Protocol P/N: [4367218](#)

Kit Description:

The *Power SYBR® Green RT-PCR Reagents Kit* provides all the necessary components to perform either a one- or two-step RT-PCR. The *TaqMan® Reverse Transcription Reagents* provide all the necessary components to perform the reverse transcription of RNA to cDNA. This kit includes the *Power SYBR® Green PCR Master Mix* (P/N 4367659) and *TaqMan® Reverse Transcription Reagents* (P/N N808-0234). This kit contains enough reagents for 200 RT-PCR reactions when RT reaction volume is 10 µL, and the PCR reaction volume is 50 µL.

Input sample template should be RNA.

Kit Components:

Power SYBR® Green PCR Master Mix

Supplied at a 2X concentration.

SYBR® Green I dye

AmpliTaq Gold® DNA Polymerase, LD

dNTPs with dTTP/dUTP

Passive Reference I

Optimized buffer components.

TaqMan® Reverse Transcriptase Reagents

MultiScribe™ Reverse Transcriptase (100 µl)

RNase Inhibitor (2 x 100 µl)

dNTP Mixture (1 ml)

Oligo d(T)₁₆ (100 µl)

Random Hexamers (100 µl)

10X RT Buffer (1.5 ml)

MgCl₂ Solution (1.5 ml).

[Top](#)

15. SYBR® Green RT-PCR Reagents

[Order Information](#)

[Product Information](#)

Part Number: 4310179

Protocol P/N: [4310251](#)

Kit Description:

The SYBR® Green RT-PCR Kit provides all the necessary components to perform either a one- or two-step RT-PCR. The TaqMan® Reverse Transcription Reagents provide all the necessary components to perform the reverse transcription of RNA to cDNA. This kit includes the SYBR® Green PCR Master Mix (P/N 4309155) and TaqMan® Reverse Transcription Reagents (P/N N808-0234). This kit contains enough reagents for 200 RT-PCR reactions when RT reaction volume is 10 µl, and the PCR reaction volume is 50µl.

Input sample template should be RNA.

Kit Components:

SYBR® Green PCR Master Mix

Supplied at a 2X concentration.

SYBR® Green I dye

AmpliTaq Gold® DNA Polymerase

dNTPs with dUTP

Passive Reference 1

Optimized buffer components.

TaqMan® Reverse Transcriptase Reagents

MultiScribe™ Reverse Transcriptase (100 µl)

RNase Inhibitor (2 x 100 µl)

dNTP Mixture (1 ml)

Oligo d(T)₁₆ (100 µl)

Random Hexamers (100 µl)

10X RT Buffer (1.5 ml)

MgCl₂ Solution (1.5 ml).

[Top](#)

Preformulated TaqMan® Assays

Gene Expression

1. TaqMan® Gene Expression Assays

[Search & Order Information](#)

[Product Information](#)

Protocol P/N: [4333458](#)

P/N 4331182

[How to Choose an Endogenous Control](#)

Kit Description

Pre-formulated Assay (250 µl, 20X mix). One tube contains:

- 2 unlabeled PCR primers
- 1 FAM™ dye-labeled TaqMan® MGB probe

250 reactions; 20 µl reaction volume

100 reactions; 50 µl reaction volume

Input sample template should be cDNA.

Recommendations:

These assays are designed and optimized for two-step RT-PCR using TaqMan® Universal PCR Master Mix (with [P/N 4304437] or without AmpErase® UNG [P/N 4324018]) and cDNA. Because of its superior performance, we recommend using the Applied Biosystems High-Capacity cDNA Archive Kit (P/N 4322171) for converting RNA to cDNA. However, it is also possible to use the TaqMan® Reverse Transcription Reagents (P/N N808-0234).

[Top](#)

2. TaqMan® Custom Gene Expression Assays

[Order Information](#)

[Product Information](#)

Protocol P/N: [4334429](#)

[How to Choose an Endogenous Control](#)

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Kit Description

Pre-formulated Assay (Concentrations depend on assay scale ordered)

One tube contains:

- 2 unlabeled PCR primers
- 1 FAM™ dye-labeled TaqMan® MGB probe

Input sample template should be cDNA.

Available Assay Scales:

Description	Part Number	Reactions at 50µl volume	Reactions at 20µl volume	Assay Mix Concentration
V-scale	4331348	140	360	20X
S-scale	4332078	300	750	20X
A-scale	4332079	1,160	2,900	60X

Recommendations:

*Use when an assay is not available through TaqMan® Gene Expression Assays. These assays are designed and optimized for two-step RT-PCR using TaqMan® Universal PCR Master Mix (with [P/N 4304437] or without [P/N 4324018] AmpErase® UNG) and cDNA. Because of its superior performance, we recommend using the Applied Biosystems High-Capacity cDNA Archive Kit (P/N 4322171) for converting RNA to cDNA. However, it is also feasible to use the TaqMan® Reverse Transcription Reagents (P/N N808-0234).

[Top](#)

3. TaqMan® Pre-Developed Assay Reagents for Gene Expression (PDAR)

Product Information: [Gene Expression](#)

Categories – Order Information:

[TaqMan® Endogenous Controls](#)

[TaqMan® Pre-Developed Assay Reagents for Gene Expression - Human](#)

[TaqMan® Pre-Developed Assay Reagents for Gene Expression - Mouse](#)

[TaqMan® Pre-Developed Assay Reagents for Gene Expression - Rat](#)

Gene Expression PDARs Searchable by [Functional Categories &/or Species](#)

Protocol P/N: [4310255](#)

[How to Choose an Endogenous Control](#)

Kit Description:

Pre-Developed TaqMan® Assay Reagents are designed for the detection and quantification of specific genetic sequences including target and control assays. PDARs are optimized, ready-to-use, real-time TaqMan® Assays.

Input sample template should be cDNA

Pre-formulated Assay (20X mix). One tube contains:

- 2 unlabeled primers
- 1 dye-labeled TaqMan® probe*

*Please consult the [Part Numbers Legend](#) to determine:

- **reporter dye** associated with each PDAR TaqMan[®] probe
- **quencher dye** associated with each PDAR TaqMan[®] probe
- **number of reactions** possible per 50 µl reaction.

Recommendations:

These PDARs are designed and optimized for use with the TaqMan[®] Universal PCR Master Mix (with [P/N 4304437] or without [P/N 4324018] AmpErase[®] UNG). Because of its superior performance, we recommend using the Applied Biosystems High-Capacity cDNA Archive Kit (P/N 4322171) for converting RNA to cDNA. However, it is also possible to use the TaqMan[®] Reverse Transcription Reagents (P/N N808-0234).

[Top](#)

SNP Genotyping

1. TaqMan[®] SNP Genotyping Assays

[Search & Order Information](#)

[Product Information](#)

Protocol P/N: [4332856](#)

P/N 4331183

Kit Description:

Pre-formulated Assay (187.5 µL, 20X mix). One tube contains:

- 2 unlabeled primers
- 1 FAM[™] dye-labeled TaqMan[®] MGB probe
- 1 VIC[®] dye-labeled TaqMan[®] MGB probe

750 reactions; 5 µl reaction volume

150 reactions; 25 µl reaction volume

Input sample template should be gDNA.

Recommendations:

These assays are designed and optimized to work with the TaqMan[®] Universal PCR Master Mix without AmpErase[®] UNG (P/N 4324018). It is also possible to use the TaqMan[®] Universal PCR Master Mix with AmpErase[®] UNG (P/N 4304437).

[Top](#)

2. TaqMan® Custom SNP Genotyping Assays

[Order Information](#)

[Product Information](#)

Protocol P/N: [4334431](#)

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Kit Description:

Pre-formulated Assay (Concentrations depend on assay scale ordered)

One tube contains:

- 2 unlabeled PCR primers
- 1 FAM™ dye-labeled TaqMan® MGB probe
- 1 VIC® dye-labeled TaqMan® MGB probe

Input sample template should be gDNA.

Available Assay Scales:

	V-scale	S-scale	A-scale
SNP Genotyping, Human part #	4331349	4332072	4332073
SNP Genotyping, non-Human part #	4332077	4332075	4332076
Reactions at 5µl volume	1,000	3,000	12,000
Reactions at 25µl volume	200	600	2,400
Assay Mix Concentration	40X	40X	80X

Recommendations:

*Use when an assay is not available through TaqMan® SNP Genotyping Assays.

These assays are designed and optimized to work with the TaqMan® Universal PCR Master Mix without AmpErase® UNG (P/N 4324018). It is also possible to use the TaqMan® Universal PCR Master Mix with AmpErase® UNG (P/N 4304437).

[Top](#)

3. TaqMan® Pre-Developed Assay Reagents for Allelic Discrimination (SNP Genotyping) (PDAR SNP)

[Product Information](#)

[Order Information](#)

Protocol P/N: [4312214](#)

Kit Description:

TaqMan® PDARs for Allelic Discrimination use the 5' nuclease assay to genotype purified human DNA samples for specific mutations. Most TaqMan® PDARs for allelic discrimination assays discriminate between two alleles of single nucleotide polymorphisms (SNP). Each assay contains two different TaqMan® probes, and each

uniquely labeled probe binds preferentially to one of the alleles. Each kit contains enough reagents for 400 PCR reactions when the reaction volume is 50 μ l.

Input sample template should be gDNA.

Pre-formulated Assay (10X mix). One tube contains:

- 2 unlabeled primers
- 1 FAM™ dye-labeled TaqMan® MGB probe
- 1 VIC® dye-labeled TaqMan® MGB probe

Also come with Control DNA for each allele.

400 reactions; 25 μ l reaction volume

Recommendations:

The Allelic Discrimination PDARs are designed and optimized for use with the TaqMan® Universal PCR Master Mix (with [P/N 4304437] or without [P/N 4324018] AmpErase® UNG).

[Top](#)

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