PhileKorea

1st PhileKorea,Inc. (주)필코리아테크놀로지

Product Insert

QuantiSpeed HRM Kit

Cat. No.

QS815-02	**200 x 20ul reaction: 2 x 1mL**
QS815-05	**500 x 20ul reaction: 5 x 1mL**
QS815-10	**1000 x 20ul reaction: 10 x 1mL**

Shipping: On Dry/Blue Ice
Store at -20℃

Product description

Combined with the latest advancements in polymerase technology and advanced buffer chemistry QuantiSpeed HRM kit offers market leading accuracy in High Resolution Melt (HRM) analysis. QuantiSpeed HRM kit uses SyGreen 2, a 3rd generation, saturating, intercalating dye which does not inhibit PCR.

HRM analysis is a powerful technique for the analysis of mutations, polymorphisms and epigenetic differences in double-stranded DNA samples.

QuantiSpeed HRM Kit uses proprietary small molecular inhibitor technology that prevents formation of primer-dimers to improve reaction sensitivity and specificity.

High-throughput screening has resulted in a buffer system that allows efficient amplification from GC-rich and AT-rich templates, under fast and standard cycling conditions.

Kit Components

Reagent	200x20ul	500x20ul	1000x20ul
QuantiSpeed HRM Kit (2x)	2x1ml	5x1ml	10x1ml

Shipping and Storage

On arrival the kit should be stored at -20℃. Avoid prolonged exposure to light. If stored correctly the kit will retain full activity for 12 months. The kit can be stored at 4℃ for 1month. The kit can go through 30 freeze/thaw cycles with no loss of activity.

Limitations of product use

The product may be used only for in vitro research purposes.

Technical Support

If the troubleshooting guide does not solve the difficulty you are experiencing, please contact Technical Support with details of reaction setup, cycling conditions and relevant date.

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Instrument compatibility

Manufacturer	Model
Illumina®	Eco™
Bio-Rad	CFX96, CFX384
Roche	LightCycler® 480, LightCycler®Nano
Qiagen	Rotor-Gene™ 6000 & Q
Eppendorf	Mastercycler® ep realplex, Mastercycler®realplex25
Applied Biosystems	7900, 7900HT, 7900HT FAST, StepOne™, StepOne™ Plus, 7500, 7500FAST, Viia7™

Important considerations

Primer design: For efficient amplification under fast cycling conditions we recommend amplicon lengths between 80bp and 200bp. With all manufacturers master mixes the shorter the amplicon length the faster the reaction can be cycled. Amplicon lengths should not exceed 400bp. Primers should have a predicted melting temperature of around 60℃, using default Primer 3 settings (http://frodo.wi.mit.edu/primer3/).

Reaction setup

1. Before starting, briefly vortex 2x QuantiSpeed HRM mix.
2. Prepare a master mix based on following table:

Components	Volume (ul)	Final Concentration
2x QuantiSpeed HRM mix	10ul	1x
Forward primer (10uM)	0.8ul	400nM
Reverse primer (10uM)	0.8ul	400nM
Template DNA	<100ng cDNA, <1ug genomic	variable
dH_2O	Up to 20ul	
Total volume	20ul	

3. Program the instrument using following conditions, acquiring data on the SYBR® Green or FAM channel:

Cycles	Temperature	Time	Notes
1	95℃	*2-3min	Polymerase activation
40	95℃ 60℃ to 65℃	5s 20-30s	Denaturation Anneal/Extension, do not use temperatures below 60℃
HRM analysis	Refer to instrument instructions		Optional melt profile analysis

*Polymerase activation, 2min for cDNA and 3min for genomic DNA