

# Manual

# RT PCR Mix EvaGreen®

Ready-to-use mix for real-time PCR with EvaGreen®. Used for HRM analysis. 2x concentrated.

catalog#	size
2008-100G	200 reactions in 25 μl
2008-1000G	2000 reactions in 25 μl

For research use only.

#### Guarantee

A&A Biotechnology provides guarantee on this product.

The company does not guarantee correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components

EvaGreen® is a registered trademark of Biotium Inc.



# Description

RT PCR Mix EvaGreen® is optimized ready to use real-time PCR mixture for HRM technique. Mixture contains all components required for qPCR except DNA template and primers.

HRM (ang. high resolution melt) is a novel, homogeneous, close-tube, post-PCR method, enabling the analysis of genetic variations (SNPs, mutations, methylations) in PCR amplicons.

The premix formulation saves time and reduces contamination due to a reduced number of pipetting steps required for PCR set up. The mix is optimized for efficient and reproducible reaction.

#### **Contents**

	2008-100G	2008-1000G	storage
RT PCR Mix EvaGreen®	2 x 1.25 ml	20 x 1.25 ml	-20 °C, in darkness
ultrapure water	2 x 1.5 ml	20 x 1.5 ml	-20 °C

## RT PCR Mix EvaGreen® composition

component	amount	
Taq DNA polymerase	0.1 U/μΙ	
MgCl <sub>2</sub>	4 mM	
dNTPs	0.5 mM of each dNTP	
2x reaction buffer with EvaGreen®		

# **Notes**

- Before use all solutions should be thawed thoroughly on ice, gently mixed by inverting the tube and briefly centrifuged.
- Up to 7x repeated freeze-thaw cycles do not influence the activity of this product.

# **Example PCR protocol**

- 1. Thaw all components of the kit on ice, gently mix by inverting the tubes and briefly centrifuge. Place the tubes on ice again.
- 2. Place PCR tubes on ice and add:

		PCR reaction volume		
component	10 μΙ	25 μΙ	50 μl	
RT PCR Mix EvaGreen®	5 μΙ	12.5 μl	25 μΙ	
primer 1**	0.1-1 μΜ*	0.1-1 μM*	0.1-1 μM*	
primer 2**	0.1-1 μΜ*	0.1-1 μM*	0.1-1 μM*	
DNA, cDNA template	10 pg-1 μg	10 pg-1 μg	10 pg-1 μg	
ultrapure water	up to 10 μl	up to 25 μl	up to 50 μl	

<sup>\*</sup> recommended for standard gPCR

- 3. Gently vortex the samples and briefly centrifuge to collect all droplets remaining on the tube walls and caps to the bottom of the tube.
- 4. Place the tubes in the thermocycler and start the PCR programme.

An example amplification profile:

step	temperature	time
initial denaturation	95 ℃	2-3 min
25-45 cycles	95 °C 50-68 °C 72 °C	15-30 s 30-60 s 15-60 s*

<sup>\*</sup> depending on the length of PCR products

### **Recommended ROX mixture**

HiROX (0.6-1  $\mu$ l per 50  $\mu$ l of total reaction volume): Applied Biosystems: 7000, 7300, 7700, 7900HT Fast, StepOne, StepOnePlus.

 $\textbf{LowROX} \ (0.6-1\ \mu\text{l per } 50\ \mu\text{l of total reaction volume}): Applied \ Biosystems: 7500, Stratagene: Mx3000P, Mx3005P, Mx4000P.$ 

<sup>\*\*</sup> final concentration in reaction mixture

PCR product melting analysis is recommended.



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