Axon Labortechnik

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5x Hot Start Taq EvaGreen® qPCR SuperMix

Suitable for ROX-dependent and ROX-independent qPCR cyclers

Cat. No.	Pack Size	Conc. ($MgCl_2$)
29718	0.2 ml SAMPLE (50 reactions)	12.5 mM
29719	1 ml (250 reactions)	12.5 mM
29720	8 ml (2000 reactions)	12.5 mM
29721	20 ml (5000 reactions)	12.5 mM

For *in vitro* use only

Lot nr:
Exp. Date:

Description:

5x Hot Start Taq EvaGreen® qPCR SuperMix is an optimised ready-to-use solution for real time quantitative PCR assays, including EvaGreen® dye. It comprises all the components necessary, excluding the template and primers, to perform highly sensitive qPCR.
Hot Start Taq is activated by a 12 min incubation step at 95℃. Hot-start mechanism prevents extension of non-specifically annealed primers and primer-dimers formed at low temperatures during qPCR setup.

Benefits:

- Highly specific and reproducible real time PCR
- Excellent efficiency in case of low copy number targets
- UNG treatment capability due to dNTP blend of dUTP/dTTP
- Superior performance with long (up to 500 bp) and GC-rich templates
- Blue visualisation dye for easy pipetting

Applications:

- Detection and quantification of DNA and cDNA targets
- Profiling gene expression
- Microbial detection
- Viral load determination

Wide instrument compatibility:

5x HOT Start Taq EvaGreen® qPCR Supermix is designed for use with standard cycling mode on standard and fast qPCR platforms regardless of requirements in ROX. The Mix is compatible with:

- **Applied BioSystems**: QuantStudio™ 12K Flex, ViiA™ 7, 7900HT, 7500, 7700, StepOne™ & StepOnePlus™
- **Stratagene**: MX3000P™, MX3005P™
- **Bio-Rad:** CFX96™ & CFX384™, iQ™5 & MyiQ™, Chromo4™, Opticon® 2 & MiniOpticon®
- **Qiagen:** Rotor-Gene® Q, Rotor-Gene® 6000
- **Eppendorf:** Mastercycler®: ep realplex2 & ep realplex4
- **Illumina:** The Eco™
- **Roche:** LightCycler® 480

Mix Composition:

- **HOT Start Taq DNA Polymerase**
- **Optimized buffer**
- **12.5 mM $MgCl_2$**
  1x PCR solution – 2.5 mM $MgCl_2$
- **dNTP blend containing dUTP/dTTP**
- **EvaGreen® dye**
- **Internal reference based on ROX dye**
- **GC-enhancer**
- **Blue visualisation dye**

EvaGreen® Dye:

EvaGreen® is a DNA-binding dye with many features that make it a superior alternative to SYBR® Green I for qPCR. Apart from having similar spectra, EvaGreen® has three important features that set it apart from SYBR® Green I: EvaGreen® has much less PCR inhibition, is extremely stable dye and has been shown to be nonmutagenic and noncytotoxic. EvaGreen® is compatible with all common real-time PCR cyclers – simply select the standard settings for SYBR® Green or FAM!

Shipping and Storage conditions:

Routine storage: -20ºC
Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of Hot Start Taq EvaGreen® qPCR SuperMix

Recommended qPCR reaction mix:

Component	Volume	Final conc.
5x Hot Start Taq EvaGreen® qPCR Mix	4 µl	1x
Primer Forward (10 pmol/µl)	0.16-0.5 µl	80-250 nM
Primer Reverse (10 pmol/µl)	0.16-0.5 µl	80-250 nM
gDNA template	1-5 µl	0.02-2 ng/µl
H_2O PCR grade	up to 20 µl	
Total	**20 µl**	

Recommended qPCR cycles:

Cycle step	Temp.	Time	Cycles
Initial denaturation	**95ºC**	**12 min**	1
Denaturation	95ºC	15 s	40
Annealing	60ºC	20 - 30 s	
Elongation	68-72ºC	20 - 30 s	

IMPORTANT: To activate the polymerase, include an incubation step **at 95ºC for 12 minutes** at the beginning of the qPCR cycle.

Safety warnings and precautions:

This product and its components should be handled only by persons trained in laboratory techniques. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

Trademarks:

EvaGreen® is a registered trademark of BIOTIUM, INC. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer, where such research does not include testing, analysis or screening services for any third party in return for compensation on a per test basis. The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

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OPTIONAL UNG TREATMENT

Reaction mix in case of additional UNG treatment:

Component	Volume	Final conc.
5x Hot Start Taq EvaGreen® qPCR Mix	4 µl	1x
Primer Forward (10 pmol/µl)	0.16-0.5 µl	80-250 nM
Primer Reverse (10 pmol/µl)	0.16-0.5 µl	80-250 nM
UNG (Uracil-N-glycosylase)	X µl	0.01 U/ µl
gDNA template	1-5 µl	0.002-2 ng/µl
H_2O PCR grade	up to 20 µl	
Total	**20 µl**	

Recommended qPCR cycles:

Cycle step	Temp.	Time	Cycles
UNG treatment	50ºC	2 min	1
Initial denaturation	**95ºC**	**12 min**	1
Denaturation	95ºC	15 s	40
Annealing	60ºC	20 - 30 s	
Elongation	68-72ºC	20 - 30 s	

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