

Titan HotTaq EvaGreen® qPCR Universal Mix

Cat. No.	Pack Size
BTS0023	100 µl (25 reactions) SAMPLE
BT11104	1 ml (250 reactions)

Universal qPCR Mix for either ROX or no-ROX qPCR cyclers.

Storage & Shipping:

Store at -20°C, shipping at room temperature.

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of Titan HotTaq EvaGreen® qPCR Universal Mix.

Application:

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

Reagent Composition:

- **Titan HotTaq DNA polymerase**
- **qPCR buffer**
- **12.5 mM MgCl₂: 1x PCR solution – 2.5 mM MgCl₂**
- **dNTPs**, including dUTP/dTTP
- **EvaGreen® dye** **Internal reference** (based on ROX dye)
- **GC-enhancer**
- **Visualisation dye**

Description:

Titan HotTaq EvaGreen® qPCR Universal Mix is optimized for real-time quantitative PCR assays. The ready-to-use mix includes Titan HotTaq DNA polymerase and other components necessary to perform the reaction - only water, template and primers needs to be added.

Titan HotTaq DNA polymerase is activated by a 12 min incubation step at 95°C. This prevents extension of non-specifically annealed primers and primer-dimers formed at low temperatures during qPCR setup.

Advantages:

- Specific and reproducible real time PCR
- Highly efficient in case of low copy number targets
- Superior performance with long (up to 500 bp) and GC-rich templates
- UNG treatment capability due to combination of dUTP/dTTP
- Easy pipetting due to blue visualisation dye

EvaGreen® Dye:

EvaGreen® is a DNA-binding dye for qPCR that, compared to SYBR® Green I, has similar spectra but much less PCR inhibition. It is extremely stable and has been shown to be nonmutagenic and noncytotoxic.

EvaGreen® is compatible with all common real-time PCR cyclers by selecting the standard settings for SYBR® Green or FAM.

Recommended qPCR reaction mix:

Component	Volume	Final conc.
Titan HotTaq EvaGreen® qPCR Universal Mix	4 µl	1x
Primer Forward (10 pmol/µl)	0.2-0.4 µl	100-200 nM
Primer Reverse (10 pmol/µl)	0.2-0.4 µl	100-200 nM
DNA template	1-5 µl	0.002-2 ng/µl
H ₂ O PCR grade	up to 20 µl	
Total	20 µl	

Recommended qPCR cycles:

Cycle step	Temp.	Time	Cycles
Initial denaturation	95°C	12 min*	1
Denaturation	95°C	15 s	40
Annealing	60°-65°C	20 - 30 s**	
Elongation	72°C	20 - 30 s**	

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

**Use 20 sec for annealing and elongation for templates shorter than 150 bp

UNG treatment - OPTIONAL

Recommended qPCR reaction mix in case of additional UNG treatment:

Component	Volume	Final conc.
Titan HotTaq EvaGreen® qPCR Universal Mix	4 µl	1x
Primer Forward (10 pmol/µl)	0.2-0.4 µl	100-200 nM
Primer Reverse (10 pmol/µl)	0.2-0.4 µl	100-200 nM
UNG (Uracil-N-glycosylase)	x µl*	0.01 U/µl
DNA template	1-5 µl	0.002-2 ng/µl
H ₂ O PCR grade	up to 20 µl	
Total	20 µl	

Please add UNG according to manufacturer's specification

Recommended qPCR cycles in case of additional UNG treatment:

Cycle step	Temp.	Time	Cycles
UNG treatment	50°C	2 min	1
Initial denaturation	95°C	12 min*	40
Denaturation	95°C	15 s	
Annealing	60°-65°C	20 - 30 s**	
Elongation	72°C	20 - 30 s**	

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

Safety warnings and precautions:

This product is designed for research purposes and *in vitro* use only. According to common laboratory safety practice, it is recommended to wear protective clothing, gloves and safety glasses. Please refer to www.bioatlas.com for Material Safety Data Sheet of the product.

Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required.

EvaGreen® is a registered trademark and licensed for sale by Biotium, Inc., Hayward, CA, USA.

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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