



# GeneAce SYBR™ qPCR Mix α Low ROX

## I. Description

GeneAce SYBR™ qPCR Mix α Low ROX is a convenient 2X premix for real-time qPCR using SYBR™ Green I dye. This product was optimized for instruments that require a low ROX reference signal for fluorescence normalization (Compatible instruments: ABI 7500, Stratagene Mx3000P / 3005 / 4000, etc.).

This product provides high specificity and reproducibility and allows for reducing non-specific amplification by using optimized buffer components and Hot-Start Gene Taq NT, a chemically modified Taq DNA Polymerase.

## II. Storage

-20°C, protected from light.

This product should be protected from light. After thawing, the master mix may be stored at 4°C for up to one month or returned to -20°C for long term storage.

## III. Components

**300 rxns**

2 x GeneAce SYBR™ qPCR Mix α Low ROX *1)	1.5 ml x 5
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\*1) It contains Hot-Start Gene Taq NT, dNTP Mixture, Mg<sup>2+</sup>, SYBR™ Green I, ROX reference dye, stabilizer.

## IV. Notes

- **The PCR must start with an initial 10 minutes incubation at 95°C to activate the chemically modified hot-start Taq DNA polymerase.**
- **We recommend two-step cycling protocols. (See V. Typical PCR protocol)**
- **This product cannot be used for runs in “Fast”<sup>\*)2</sup> mode on ABI real time instruments.**

\*2) 95°C 20 sec → (95°C 3 sec , 60°C 30 sec) x cycle numbers

- Always ensure that the product has been fully thawed and mixed before use. Gently mix the mixtures without creating bubbles.
- Uracil-N-Glycosylase treatment is unusable on this product.

## V. Typical PCR Protocol

Choose an appropriate total reaction volume, depending on the instrument used. (e.g., 50 µl or 25 µl)

Component	Volume	Volume
2x GeneAce SYBR qPCR Mix α Low ROX	25.0 µl	12.5 µl
25 µM each Primers	1.0 µl	0.5 µl
Template	5.0 µl	2.5 µl
d.d.H <sub>2</sub> O	up to	50.0 µl 25.0 µl

Recommended cyclor conditions

**95°C 10 min. Enzyme activation <sup>\*)3</sup>**

**95°C 30 sec. ) 45 cycles**

**60°C 1 min. )**



Melting curve analysis

Optimum PCR condition depends on primer sequence and template DNA and so on.

\*3) Ensure that the cycling program includes the DNA polymerase activation step. Initial 10 minutes incubation at 95°C is required.

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# GeneAce SYBR™ qPCR Mix α Low ROX

## I. 製品説明

GeneAce SYBR™ qPCR Mix α Low ROX は、ROXを用いてウェル間の蛍光シグナルの補正を行うリアルタイム PCR 装置 (ABI 7500、Stratagene Mx3000P / 3005 / 4000 等) に対応したインターカレーター法用のリアルタイム PCR 用試薬です。2x 濃度に予め調製されたマスターミックスが小分け分注済みです。

本製品は、ホットスタート PCR 用酵素 Hot-Start GeneTaq NT と最適化されたバッファーにより、非特異的増幅を抑制し、高い特異性と再現性を実現しています。

## II. 保存

-20°C (遮光)

4°C保存(遮光)も可能ですが、その場合は1ヶ月以内にご使用下さい。

## III. 製品内容

試薬	300 反応用
2 x GeneAce SYBR™ qPCR Mix α Low ROX *1)	1.5 ml x 5 本

\* 1) Hot-Start Gene Taq NT, dNTP Mixture, Mg<sup>2+</sup>, SYBR™ Green I, ROX Reference Dye, stabilizer を含んでいます。

## IV. 注意

- 化学修飾を施したホットスタート PCR 用酵素を用いているため、酵素活性化ステップ (95°C 10min.) を必ず実施して下さい。
- 推奨 PCR サイクル条件にてご使用下さい。(V.使用例 参照)
- ABI リアルタイム PCR 装置のランモード「Fast」\*2) には対応しておりません。
  - \* 2) 95°C 20 sec → (95°C 3 sec, 60°C 30 sec) × サイクル数
- 使用時は、泡立てないように穏やかに転倒混和し、試薬を十分均一にしてからご使用下さい。
- Uracil-N-Glycosylase によるキャリアオーバー処理は出来ません。

## V. 使用例

ご使用の装置に対応した反応量度でご使用下さい。

<反応液(例)>	[ 50 µl 系 ]	[ 25 µl 系 ]
2x GeneAce SYBR qPCR Mix α Low ROX	25.0 µl	12.5 µl
25 µM each Primers	1.0 µl	0.5 µl
Template	5.0 µl	2.5 µl
d.d.H <sub>2</sub> O	up to 50.0 µl	25.0 µl

<推奨 PCR サイクル条件>\*3)

95°C 10 min.  
95°C 30 sec.  
60°C 1 min. ) 45 cycles



融解曲線解析

プライマーの設計や鋳型 DNA 等により反応の至適条件が変わることがあります。

\* 3) 酵素の活性化ステップは、95°C10 分間必ず行って下さい。

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