Mango*Taq*™

Shipping: On Dry/Blue Ice Catalog numbers

BIO-21083 : 1000 Units

Batch No.: See vial

Concentration: 2x

Store at –20 °C

bioline
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Storage and stability:
The Mango*Taq* is shipped on dry/blue ice. On arrival store at -20 °C for optimum stability. Repeated freeze/thaw cycles should be avoided.

Expiry:
When stored under the recommended conditions and handled correctly, full activity of the kit is retained until the expiry date on the outer box label.

Safety precautions:
Please refer to the material safety data sheet for further information.

Unit definition:
One unit is defined as the amount of enzyme that incorporates 10nmoles of dNTPs into acid-insoluble form in 30 minutes at 72 °C.

Notes:
Research use only.
Mango*Taq* and MangoMix are Trademarks of Bioline Reagents Ltd.

Features

- Excellent price and performance
- Easy visual recognition
- Direct loading onto agarose gels
- Robust performance
- Available as a ready-to-use 2x Reaction mix (MangoMix™)

Applications

- For high throughput applications
- Suitable for a wide range of PCR assays
- Products suitable for TA cloning

Description

Mango*Taq*™ DNA Polymerase is a formulation of *Taq* DNA Polymerase which offers high yield across a wide range of DNA templates. Mango*Taq* DNA Polymerase possesses 5´-3´ exonuclease activity and leaves an ´A´ overhang such that the PCR product is suitable for effective integration into TA cloning vectors. The polymerase is supplied with two different reaction buffers for greater user flexibility. For high-throughput applications, Mango*Taq* and the colored reaction buffer make an ideal choice, since this combination enables the user to load directly on a gel in order to facilitate easy recognition.

The two reaction buffers supplied are: 5x Colored Reaction Buffer and 5x Colorless Reaction Buffer. The colored reaction buffer contains red and orange dyes, which separate during electrophoresis and provide quick reference points for monitoring the mobility of the DNA samples in the gel. The colored reaction buffer can be loaded directly onto an agarose gel for analysis, without the need for separate gel-loading buffer. The presence of the dyes has no effect on routine enzymatic manipulations, although rare exceptions may exist.

Since the colorless reaction buffer does not contain reference dyes, it is suitable for use when reaction products will be used directly for down-stream processes involving absorbance or fluorescent detection.

Components:

	1000 Units
Mango*Taq*	200 µL
5x Mango*Taq* Colored Reaction Buffer	4 x 1.5 mL
5x Mango*Taq* Colorless Reaction Buffer	4 x 1.5 mL
50 mM $MgCl_2$ Solution	2 x 1.2 mL

Citations:

1. Russell, A.B. *et al. Nature* **475**, 343-347 (2011).
2. Cheng, K. *et al. J. Neurosci.* **31**, 11905-11913 (2011).
3. Dhillon, S.S. *et al. Endocrin.* **152**, 4138-4147 (2011).
4. Augustus, A.M. & Spicer, L.D. *BMC Genomics* **12**, 558 (2011).
5. Lau, A., *et al. J. Clin. Microbiol.* **48(3)**, 811-816 (2010).
6. Hedtke, B. & Grimm, B. *NAR* **37(11)**, 3739–3746 (2009).
7. Fukui, H. & Moraes, C.T. *Hum. Mol. Genet.* **18**, 1028-1036 (2009).
8. Telle, S. & Thines, M. *PLoS One* **3(10)** e3584 (2008).
9. Lau, A., *et al. J. Clin. Microbiol.* **46(9)**, 3021-3027 (2008).
10. Ho, S-W., *et al. PNAS* **103 (26)**, 9940-9945 (2006).

Associated Products:

Product Name	Pack Size	Cat No
MangoMix™	250 reactions	BIO-25033
dNTP Mix 100 mM total	1 x 500 µL	BIO-39028

PCR Reaction conditions (for a 50 µL reaction)

5x Mango*Taq* Reaction Buffer (Colored **or** colorless)	10 µL
50 mM $MgCl_2$ Solution	See below
100 mM dNTP Mix (see below)	0.5 µL
Template and Primers	as required
Enzyme	1.0 µL
Water (ddH_2O)	up to 50 µL

Bioline 100mM dNTP Mix is available as a separate product (Cat. No. BIO-39028)

Denature: 94-96 °C
Extension: 70-72 °C Allowing 15-30 seconds per kb

Final Magnesium concentration required	Vol. of 50 mM $MgCl_2$ to add to a 50 µL final reaction volume
1.5 mM	1.5 µL
2.0 mM	2.0 µL
4.0 mM	4.0 µL

Stock Solution: 50 mM $MgCl_2$ (suggested final concentration 1.5 mM - 4 mM).

This data is intended for use as a guide only; conditions will vary from reaction to reaction and may need optimization.

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