Mango*Taq*™ DNA Polymerase and Mix

See your PCR in color

- **Direct gel loading:** no need for further post-PCR processing steps
- **Easy visual recognition:** reduces pipetting errors
- **Robust performance:** perfect for a wide range of PCR reactions
- **Reproducible results:** consistent QC ensures reliability

Mango*Taq*™ DNA Polymerase offers high-yield across a wide range of DNA concentrations. Mango*Taq* DNA Polymerase leaves an A' overhang such that PCR product is suitable for effective integration into TA cloning vectors.

Mango*Taq* is supplied with two different reaction buffers, 5x Colored Reaction Buffer and 5x Colorless Reaction Buffer, for greater flexibility.

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 (Fig. 1). The colored reaction buffer is also the ideal choice for high throughput applications, as it allows the PCR products to be loaded directly onto an agarose gel for analysis without the need for a separate gel-loading buffer.

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

MASTERMIX

Because Mango*Taq* DNA Polymerase offers higher yield and greater efficiency across a variety of GC content (Fig. 2) in comparison to other polymerases, along with the direct gel loading and monitor of migration of the PCR products (Table 1), it is recommended for very high-throughput applications.

MangoMix™ is supplied as a ready-to-use mastermix that only requires the addition of template, primers and water, thereby reducing the time required for reaction set-up, minimizing the risk of contamination and providing greater reproducibility through a reduction in the number of pipetting steps.

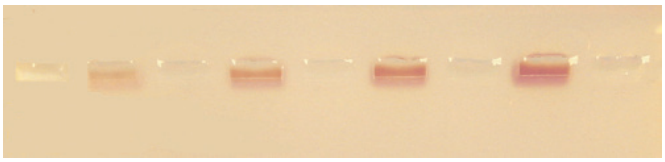
APPLICATIONS

- Standard PCR
- High-throughput PCR
- TA cloning
- Direct Loading

COLORED DNA LOADING BUFFER DYE MIGRATION (Approx.)

AGAROSE	RED	ORANGE
0.7%	1500 bp	60 bp
1.0%	750 bp	50 bp
1.5%	500 bp	40 bp
2.0%	250 bp	30 bp
3.0%	75 bp	20 bp

A.



B.

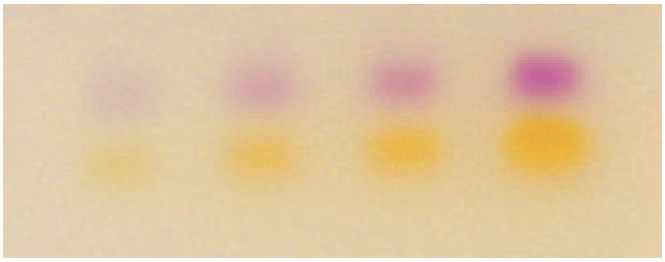


Fig. 1 Mango*Taq* reactions before and after electrophoresis
Separation of the red and orange dyes contained in the Mango*Taq* Reaction Buffer during electrophoresis. 5, 10, 15 and 20 µL of the PCR product were loaded onto a 1% agarose gel (A) and subjected to electrophoresis, to illustrate separation of the two dyes, correlating to DNA migration (B).

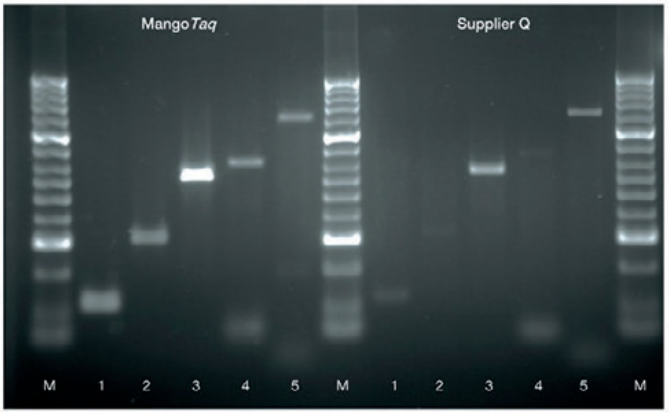


Fig. 2 Performance on GC-rich templates
119 bp (43 % GC) from human glucocerebrosidase gene (1), 321 bp (37 % GC) from angiotensin receptor II gene (2), 635 bp (56 % GC) from rhodopsin gene (3), 762 bp (33 % GC) from ß-globin gene (4), 1200 bp (54 % GC) from α-1-antitrypsin gene (5) was amplified using Mango*Taq* DNA polymerase and the results were compared with PCR reactions using an equivalent polymerase equivalent from supplier Q. HyperLadder 50 bp (M). The results illustrate the higher yield obtained using Mango*Taq* in comparison to supplier Q.

Ordering Information

Product	Pack Size	Cat. #
Mango*Taq* DNA Polymerase	1000 Reactions	BIO-21083
Mango Mix	250 Reactions	BIO-25033
	1000 Reactions	BIO-25034

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