

# Hot Start Taq 2x Master Mix



<b>Catalog #</b>	3296
<b>Package Size</b>	500 reactions

## Description

Intact Genomics (ig®) Hot start Taq DNA Polymerase 2x Master Mix is ready to use premix which contains hot start Taq DNA polymerase, dNTPs, MgCl<sub>2</sub> and stabilizers with optimized reaction buffer. It has been optimized for routine PCR applications. Hot start Taq is a thermostable DNA polymerase that possesses a 5' → 3' polymerase activity (3, 4). Hot Start Taq DNA Polymerase is chemically modified that leads to complete inactivation of the polymerase until the initial heat activation step at the start of PCR. Hot start PCR reduces non-specific amplification during setup stages of the reaction and helps increase PCR specificity and sensitivity. This product is supplied with the unique Intact Genomics 5x Magic Enhancer that enables efficient amplification of GC rich templates up to 84%.

## Applications

- Routine PCR and RT-PCR
- Primer extension
- Colony PCR
- Genotyping
- Efficient for amplifying high GC content template DNA with Magic Enhancer.

## Product Includes

- 1) Hot Start Taq 2x Master Mix
- 2) 5x Magic Enhancer

## Storage Temperature

-20 °C

## 1x Master Mix Composition

- 10 mM Tris-HCl pH 9.0
- 50 mM KCl
- 1.5 mM MgCl<sub>2</sub>
- 0.2 mM dNTPs
- 5% Glycerol
- 0.08% Igepal CA 630
- 0.05% Tween-20
- 100 units/ml Hot Start Taq Polymerase

## Protocol

1. Prepare a reaction mix according to the following table:

PCR Reaction Set Up:	
Template DNA	1-50 µg
Forward Primer (5 µM)	2.5 µl
Reverse Primer (5 µM)	2.5 µl
Hot start Taq 2x master mix	25 µl
5x Magic Enhancer (optional)	10 µl
H <sub>2</sub> O up to	50.0 µl

2. Mix the reaction mixture thoroughly.
3. Program the thermal cycler according to the manufacturer's instructions
4. A typical PCR cycling program is outlined in the following table:

PCR Cycling Conditions			
Steps	Temp.	Time	Cycles
Initial denaturation	95 °C	15 min	1
Denaturation	95 °C	30 sec	25-40
Annealing	50-66 °C	30 sec	
Extension	72 °C	1 min/kb	
Final extension	72 °C	5-10 min	1
Hold	4-12 °C		∞

5. Place the PCR tubes in the thermal cycler and start the cycling program.
6. Analyze 5 l of PCR products by agarose gel electrophoresis.

## References

1. Chien, A., Edgar, D.B. and Trela, J.M. (1976). J. Bact. 127, 1550-1557.
2. Lawyer, F.C. et al. (1993). PCR Methods and Appl. 2, 275-287.
3. Longley, M.J., Bennett, S.E and Mosbaugh D.W. Nucleic Acids Res.18, 7317-7322.
4. Lyamichev, V., Brow, M.A. and Dahlberg, J.E. (1993). Science. 260, 778-783.

## Related Products

- Taq DNA Polymerase (Cat.# 3243)
- Taq DNA Polymerase 2x Master Mix (Cat.# 3249, 3250)
- Hot Start Taq DNA Polymerase (Cat.# 3293)
- i7® Hot Start High-Fidelity DNA Polymerase 2x Master Mix (Cat.# 3281, 3283)

## Technical Support

Intact Genomics is committed to supporting the worldwide scientific research community by supplying the highest quality reagents. Each new lot of our products is tested to ensure they meet the quality standards and specifications designated for the product.

Please follow the instructions carefully and contact us if additional assistance is needed. We appreciate your business and your feedback regarding the performance of our products in your applications.

India Contact:  
Life Technologies (India) Pvt. Ltd.  
Ph: +91-11-42208000, 42208111, 42208222  
Mobile: +91-9810521400  
Email: customerservice@lifetechindia.com  
www.lifetechindia.com