

SuperHot Master Mix, 2x

Description: SuperHot Master Mix contains SuperHotTaq Polymerase, PCR buffer, dNTPs and MgCl₂. Only primer and template must be added by the customer. The optimized buffer system allows amplification of difficult templates (e.g. GC-rich regions). The polymerase in this Mix possesses a 5' - 3' polymerase activity and generates 3'A-overhangs. The PCR products obtained with SuperHot Master Mix are free of unspecific products and primer-dimers.

Storage: + 18 to + 25 °C for short term (14 days), + 2 to + 8 °C for up to two months, - 18 to - 22 °C is recommended for long term storage.

REF	129102	129110	colour
SuperHot Master Mix	2x 100 reactions	10x 100 reactions	white
MgCl ₂ , 100 mM	1 ml	2x 1 ml	green
PCR water	2x 1.8 ml	10x 1.8 ml	transparent

Application: SuperHot Master Mix is suitable for all regular PCR applications, especially for complex genomic or cDNA templates, low copy number targets, Multiplex and Real-Time PCR. This Mix effectively amplifies templates up to 5 kb length.

Unit definition: One unit of activity is defined as the amount of enzyme required to incorporate 10 nmoles of dNTP into acid-insoluble DNA fraction in 30 minutes at 72 °C.



- This Master Mix is also available with SYBR® Green dye, please see REF 129205/ 129225.
- An optimized version for TaqMan probes is available with REF 129104/ 129108.
- After thawing, please invert the Master Mix tube 6-8 times for mixing.
- Do not vortex the Master Mix tube (white) to avoid damaging the enzyme.

BIORONs Master Mixes are designed for ice-free handling and can be used in fast PCR protocols with results in less than 20 minutes.

Recommended Standard Protocol:

Component	20 µl Reaction	Final Concentration
2x Master Mix	10 µl	1 x
Forward Primer	Variable	100 – 400 nM
Reverse Primer	Variable	100 – 400 nM
Template DNA	Variable	0.01 – 10 ng per reaction
PCR Water	adjust to 20 µl final volume	--

Recommended Thermocycler Protocol

Step	Time	Temperature	Cycles
Initial Denaturation	3 minutes	92 – 95 °C	1 x
Denaturation	5 -10 seconds	92 – 95 °C	30 – 40 x
Annealing	5 -10 seconds	55 – 68 °C*	
Extension	30 seconds per 1 kb amplicon length	72 °C	

* Depends on primer, the optimal annealing temperature is usually 2 – 5°C below the primer melting temperature

Fast Thermocycler Protocol

Step	Fast Protocol	Ultra Fast Protocol	Cycles
Initial Denaturation	1 minute	1 minute	1 x
Denaturation	5 seconds	1 second	30 – 40 x
Annealing/ Extension (combined)	10 seconds	5 seconds	