

Ultimate TaqMan Master Mix, 2x

Description: The optimized Ultimate TaqMan Master Mix is recommended for qPCR and Multiplex Application. Primer, probes and template DNA have to be added by the customer, all other components (like HotStart Polymerase, PCR buffer, dNTPs and MgCl₂.) are provided in the Ultimate TaqMan Master Mix. The optimized buffer system allows amplification of difficult templates (e.g. GC-rich regions) and is adjusted for perfect results with probe-based assays. The polymerase in this Mix possesses a 5' - 3' polymerase activity and generates 3'A-overhangs. The PCR products obtained with Ultimate TaqMan 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	128104	128108	colour
Ultimate TaqMan Master Mix	2x 100 reactions	10x 100 reactions	white
MgCl ₂ , 100 mM	1 ml	5x 1 ml	green
PCR water	2x 1.8 ml	10x 1.8 ml	transparent

Application: Ultimate TaqMan Master Mix is suitable for all regular probe based PCR applications, especially for Real-Time PCR and Multiplex assays. This Mix is particularly suitable for hydrolyse probes like TaqMan and for complex genomic or DNA templates, low copy number targets and templates up to 5 kb length.



- This Master Mix is also available with SYBR® Green dye, please see REF 128205/128225.
- 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
Probe 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	2 minutes	92 – 95 °C	1 x
Denaturation	5 -10 seconds	92 – 95 °C	30 – 40 x
Annealing	5 -10 seconds	55 – 68 °C*	
Extension	1 – 10 sec	72 °C	

* Depending on the 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	

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