

## 2X Universal *Hot Start* PCR-PREMIUM for PCR/Real Time PCR (Mg final Conc. 4 mM) (50 rxns)

Cat No.110128

### DATA-SHEET

Ready to use pre-mixes are the innovation for convenience of your routine PCR as you just have to add your template DNA besides your primers & put the tubes for amplifications. These pre-mixes are optimized for most of the PCR templates. However amplifications may vary for different templates, hence Mg Concentration needs to be adjusted for further optimization.

2X Hot Start PCR PRE-MIX is an optimized, ready to use PCR mixture of Hot Start *Taq* DNA Polymerase, PCR buffer, MgCl<sub>2</sub> and dNTP's. This 2X Hot Start PCR pre-mix contains all components for PCR, except DNA template and primers. The mixture is suitable for amplification of most of the DNA templates including Real Time PCR applications. Tested for absence of endo nucleases & exo nucleases and is **also tested for amplification of single gene copy**.

**In case of difficult templates which even do not amplify with this premix, please contact us for Hot Start premix with special additives which can amplify even very difficult targets. We also offer Custom optimization services for your difficult templates.**

#### CONTENTS OF THE PACK :

Universal 2X PCR-Premix	1.25ml (for 50 reactions of 50µl)
Mol. Grade water	1.0 ml - 1 Vial

**NOTE: It is not advisable to Freeze thaw the premix time & again. If the premix is to be used in several batches then it is advisable to prepare aliquots & store at -20 °C.**

**Mol grade water :** Water is supplied in 1.0 ml quantity, which is RNase and DNase free. Advisable to aliquot the Mol. Grade water.

**SPECIFICATIONS :** Supplied as 2X in liquid form so as to ensure that you can add your primers & Template DNA volumes, to desired levels.

**Storage Conditions :** Recommended storage temperature is -20 °C.

#### DILUTION PROTOCOL for PCR : with 2 x Hot Start PCR Premix.

Component	50 µl reaction Volume		25 µl reaction volume	
	Volume	Final Conc.	Volume	Final Conc.
2X Hot Start PCR Premix	25 µl	1 X	12.5 µl	1 X
Forward primer	Variable	0.1-1 µM	Variable	0.1-1 µM
Reverse Primer	Variable	0.1-1 µM	Variable	0.1-1 µM
Template DNA	Variable	10pg-1 µg	Variable	10pg-1 µg
Sterile Deionized water	Up to 50 µl	----	Up to 25 µl	----

**-- It is advisable to use 20µl of extracted template DNA in case low yield is expected for 50µl reaction volumes. In case of High yields the volumes can be adjusted as per the yield of DNA.**

Manufactured and Marketed By :

**GENOME DIAGNOSTICS PVT. LTD.,**  
(An ISO 13485:2003 & ISO 9001:2000 Certified Company)

Up Mohal Naryal, Khasra No. 427, Opp. Divya Packers, Old Timber Depot Road,  
Near sector 4, Parwanoo, Dist. Solan. H.P.

Email: genome24@rediffmail.com

Version : P304/001 Tel.: 00 91 01792 234285,, 234286

[www.genome-diagnostics.com](http://www.genome-diagnostics.com)

[www.genomediagnostics.co.in](http://www.genomediagnostics.co.in)

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**Suggested cycling protocol :**

Initial Denaturation	95°C	10 minutes	
Cycling	95°C	20 secs	
	Annealing	30 secs	
	72°C extension	30 secs	
			40 – 45 cycles
Final Extension	72°C	5 minutes	

**Note:** For low copy templates, amplification cycles can be extended to 45.

**Packing :** The above PCR premix is available in convenient small packs as well as large packs for bulk users.

The pre-mix is supplied with an additional vial of DNase free water. Also Pre-mixes with various concentrations of MgCl<sub>2</sub> are available as mentioned below. Generally 2.5mM Pre-mix is considered as universal.

**Pack size available :**

Cat. No.	Product	Pack Size
110121	<b>2 X Hot Start PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 1.5 mM final Mg at 1 X Conc.	1.25ml x 1 (50 rxns 50µl)
110122	<b>2 X Hot Start PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 1.5 mM final Mg at 1 X Conc.	1.25ml x 2 (100 rxns 50µl)
110123	<b>2 X Hot Start PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 2.5 mM final Mg at 1 X Conc.	1.25ml (50 rxns 50µl)
110124	<b>2 X Hot Start PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 2.5 mM final Mg at 1 X Conc.	1.25ml x 2 (100 rxns 50µl)
110125	<b>2 X Hot Start PCR-Premix:</b> 500 rxns of 50µl or 1000 reactions of 25µl 2.5 mM final Mg at 1 X Conc.	1.25ml x 10 (500 rxns 50µl)
110126	<b>2 X Hot Start PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 3.5 mM final Mg at 1 X Conc.	1.25ml (50 rxns 50µl)
110127	<b>2 X Hot Start PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 3.5 mM final Mg at 1 X Conc.	1.25ml x 2 (100 rxns 50µl)
110128	<b>2 X Hot Start PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 4 mM final Mg at 1 X Conc.	1.25ml (50 rxns 50µl)
110129	<b>2 X Hot Start PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 4 mM final Mg at 1 X Conc.	1.25ml x 2 (100 rxns 50µl)
110130	<b>2 X Hot Start PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 5 mM final Mg at 1 X Conc.	1.25ml x 2 (100 rxns 50µl)
110131	<b>2 X Hot Start PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl with special additives for specialized applications.	1.25ml x 2 (100 rxns 50µl)

**NOTE :** For research use only. Not for use in Diagnostic or therapeutic procedures. Genome Diagnostics Pvt. Ltd., shall not in any event be liable for incidental or special damage of any kind resulting from any use except on applications.

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