

## X-AMP Universal SINGLE TUBE 2.5X- RT/PCR PREMIX (Mg final Conc. 2.5 mM)

Cat No.110183

### DATA-SHEET

Ready to use pre-mixes are the innovation for convenience of your routine PCR as you just have to add your template RNA/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. We are proud to Introduce our X-AMP Universal Single Tube 2.5 X RT/PCR premix which will not only save you lot of time & money but will also help in controlling cross contaminations as cDNA synthesis & subsequent PCR can be done in the same tube without opening the tubes till the final amplification process.

X-AMP Universal Single Tube 2.5X RT/PCR PRE-MIX is an optimized, stabilized, ready to use mixture of M-Mulv, Hot Start *Taq DNA polymerase*, RT/PCR buffer, MgCl<sub>2</sub> and dNTP's besides certain additives for enhanced amplifications. This 2.5X Single tube RT/PCR pre-mix performs cDNA synthesis & then subsequent PCR from a RNA template. The mixture is suitable for cDNA synthesis & subsequent amplification of most of the RNA templates. This premix is tested for absence of endo & exo nucleases. In case of difficult templates please use **SUPER-AMP Universal SINGLE TUBE 2.5X- RT/PCR PREMIX**.

#### CONTENTS OF THE PACK :

X-AMP Universal Single tube 2.5X RT/PCR-Premix      1.0 ml (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 2.5X in liquid form so as to ensure that you can add your primers & Template RNA volumes, to desired levels.

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

#### DILUTION PROTOCOL for X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:

Component	50 µl reaction Volume		25 µl reaction volume	
	Volume	Final Conc.	Volume	Final Conc.
2.5 X RT/PCR Premix	20 µl	1 X	10 µl	1 X
Forward primer	Variable	0.1-1 µM	Variable	0.1-1 µM
Reverse Primer	Variable	0.2-1 µM	Variable	0.2-1 µM
Template RNA	Variable	10pg-1 µg	Variable	10pg-1 µg
Sterile Deionized water	Up to 50 µl	----	Up to 25 µl	----

**NOTE:** -- Please use Gene specific primers for cDNA synthesis as well as for PCR.  
-- It is advisable to use 20µl of extracted template RNA 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 RNA.



Manufactured and Marketed By :

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**Suggested cycling protocol :**

cDNA Synthesis	42°C	30 minutes	
Initial Denaturation	95°C	5 minutes	
Cycling	95°C	20 secs	40 – 45 cycles
	Annealing	30 secs	
	72°C extension	30 secs	
Final Extension	72°C	5 minutes	

**Note:** -- In case of long or highly structured templates the initial cDNA synthesis step can be extended to 60 minutes.  
-- In case of low copy number the Cycling can be extended to 45 Cycles.

**Packing :** The above X-AMP Universal Single Tube 2.5X RT/PCR PRE-MIX is available in convenient small packs as well as large packs for bulk users.

The X-AMP Universal Single Tube 2.5X RT/PCR PRE-MIX is supplied with an additional vial of DNase free water. Also RT/PCR Pre-mixes with various concentrations of MgCl<sub>2</sub> are available as mentioned below. Generally 2.5mM RT/PCR Pre-mix is considered as universal.

**Pack size available :**

Cat. No.	Product	Pack Size
110181	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 1.5 mM final Mg at 1 X Conc.	1ml (50 rxns 50µl)
110182	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 1.5 mM final Mg at 1 X Conc.	1ml x 2 (50 rxns 50µl)
110183	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 2.5 mM final Mg at 1 X Conc.	1ml (50 rxns 50µl)
110184	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 2.5 mM final Mg at 1 X Conc.	1ml x 2 (100 rxns 50µl)
110185	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 500 rxns of 50µl or 1000 reactions of 25µl 2.5 mM final Mg at 1 X Conc.	1ml x 10 (500 rxns 50µl)
110186	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 3.5 mM final Mg at 1 X Conc.	1ml (50 rxns 50µl)
110187	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 3.5 mM final Mg at 1 X Conc.	1ml x 2 (100 rxns 50µl)
110188	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 50 reactions of 50µl or 100 reactions of 25µl 4 mM final Mg at 1 X Conc.	1ml (50 rxns 50µl)
110189	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 4 mM final Mg at 1 X Conc.	1ml x 2 (100 rxns 50µl)
110190	<b>X-AMP Universal SINGLE TUBE 2.5 X RT/PCR-Premix:</b> 100 reactions of 50µl or 200 reactions of 25µl 5 mM final Mg at 1 X Conc.	1ml 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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