Accuris™ Taq DNA Polymerase Master Mix and Master Mix Red

Description

Accuris Taq Master Mix and Master Mix Red are single tube formulations containing containing Accuris Taq in a buffer formulated for for fast cycling with higher reproducibility and better efficiency. After PCR, samples amplified with Accuris Taq Master Mix Red can be loaded directly onto an agarose gel without the addition of a loading buffer - the included dye is sufficiently dense to sink to the bottom of the wells. The red dye migrates with 800-1000bp DNA fragments and the yellow dye migrates with 20-30bp DNA fragments in a 1% agarose gel.

- -Ready to use 2X Master Mix reduces pipetting steps and errors
- -Performs across a wide range of DNA templates including genomic DNA and GC-rich and AT-rich sequences
- -Proprietary buffer system includes enhancers for maximizing enzyme activity and reaction speed
- -Improved solubility and template affinity

Storage

Upon receipt, immediately store at -20°C. Avoid excessive freeze/thaw cycles. When stored as directed, this product will retain its activity for 12 months from date of receipt. The product may also be stored at 4°C for up to one month.

Limitations of Use

For research purposes only. Not intended for therapeutic or diagnostic use.

Quality Control

Accuris enzymes and reagents are tested under general assay conditions for activity, reproducibility, efficiency, heat activation, sensitivity, and absence of nuclease contamination and nuclease activity. This product is manufactured under a comprehensive quality management system, following ISO 9001:2008 standards.

General Guidelines

1. *2X Taq Master Mix*

The Master Mix contains Accuris Taq DNA polymerase, 2mM dNTPs, 6mM $MgCl_2$, inert gel loading dyes (MasterMix Red only), and proprietary PCR enhancers. Formulated for maximum efficiency, sensitivity and successful PCR with a variety of difficult templates, adding additional PCR enhancers may have a negative effect on the reaction.

2. *Template*

For PCR of complex genomic DNA, 5ng - 500ng of template DNA may be added per reaction. Do not add more than 100ng of cDNA or plasmid DNA.

3. *Primers*

Primers should have a predicted melting temperature of approximately 60°C, using default Primer 3 settings (http://frodo.wi.mit.edu/primer3). The final primer concentration should be 0.2µM to 0.6µM.

4. *Annealing Temperature*

Perform gradient PCR or start at 55°C and increase in 2°C increments to find the optimal annealing temp. Proprietary enhancers in the master mix may reduce the optimal annealing temperature compared to traditional PCR buffers and mater mixes.

5. *Extension*

The polymerase performs optimally at 72°C. Extension time is dependent upon amplicon complexity and length. Generally, 30 seconds per kb is recommended for eukaryotic genomic DNA and cDNA. A five second extension is sufficient for shorter amplicons.

Technical Support

For trouble-shooting and tech support, contact us at info@accuris-usa.com or call 908 769-5555.

Reaction setup

Allow the Master Mix to thaw. Thoroughly mix contents by gently pipetting up and down. Prepare the reaction on ice as follows:

Component	*25 µl reaction*	*50 µl reaction*	*Final concentration*
Accuris 2X Taq Master Mix	12.5 µl	25 µl	1X
Forward Primer (10µM)	1.0 µl	2.0 µl	400 nM
Reverse Primer (10µM)	1.0 µl	2.0 µl	400 nM
Template DNA	<100ng cDNA, <500ng genomic		variable
PCR-grade water	to final reaction volume		

For other volumes, adjust the amount of each component accordingly.

Gently mix the solution. If needed, spin briefly in a microcentrifuge to bring reaction mixture to the bottom of the tube. Transfer samples to a thermal cycler with the block preheated to 95°C and begin cycling.

Routine PCR Cycling

Step	Temperature	Time
Initial denaturation	95°C	1 minute
25-40 cycles	95°C	15 seconds
	55°C to 67°C*	15 seconds
	72°C	30 seconds per Kb

*Annealing temperature determined by user. See "General Guidelines".

Accuris offers a full line of PCR enzymes and master mixes. Visit www.accuris-usa.com for details.

Package contents and reordering

Accuris Taq Master Mix is supplied in 200 and 1000 reaction (50 µl) packages.

Accuris Taq Master Mix, sample pack

Catalog number: PR1001-S
PR1001-R-S (w/red dye)

Includes 125µl of 2X Master Mix (Master Mix Red contains red loading dye). 5 reactions.

Accuris Taq Master Mix, 200 Rxns

Catalog number: PR1001-200
PR1001-R0200 (w/red dye)

Includes 5ml of 2X Master Mix (Master Mix Red contains red loading dye) in 1.25ml aliquots.

Accuris Taq Master Mix, 1000 Rxns

Catalog number: PR1001-1000
PR1001-R-1000 (w/red dye)

Includes 25ml of 2X Master Mix (Master Mix Red contains red loading dye) in 1.25ml aliquots.

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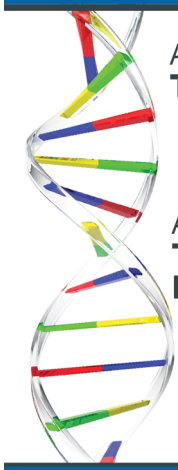

Accuris™
Taq Master Mix
☐ **PR1001**

Accuris™
Taq Master Mix Red
☐ **PR1001-R**

One Tube Formulation, 2X Concentration

Package contains:
5ml of 2X Taq Master Mix (4x1.25ml)
200 reactions, Based on 50µl total reaction volume
Store at -20°C upon receipt

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