

# See your PCR in a New Light!

Introducing...

# Sapphire Amp®

- ✓ Fast HS Premix
- ✓ "Load 'n Go" PCR



## SapphireAmp® Fast PCR Master Mix

contains a hot start PCR enzyme, optimized buffer, dNTP mixture, gel loading dye (blue) and a density reagent in a 2X premix. PCR reactions with this mix can be completed in half the time required for conventional *Taq* amplifications.

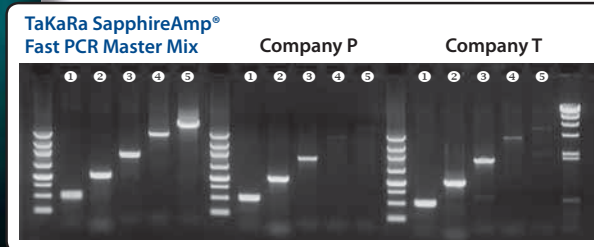
Amplification of human genomic DNA targets of 2 kb in length can be completed in 1 hour, and amplifications of human genomic DNA targets of up to 6 kb are possible using SapphireAmp™. This product is well-suited for *E.coli*-based colony PCR to check for inserts of up to ~5 kb, and colony checks can be completed in about 1 hour.

SapphireAmp® Fast PCR Master Mix reactions can be assembled by simply adding primer and DNA template to the premix. Reactions performed with this mix can be loaded directly onto a gel for electrophoresis, and restriction digestion of PCR products is possible in SapphireAmp™ reaction buffer.

SapphireAmp® Fast PCR Master Mix offers a powerful, fast, flexible and convenient alternative for both simple and complex PCR applications.

### Features

- **Faster than Standard *Taq*:** reactions completed in 1/2 the time of conventional *Taq*.
- **Restriction Enzyme Digestion can be Directly Performed on PCR Products** in the PCR buffer.
- **PCR Reaction can be Directly Loaded onto a Gel** without purification or addition of other reagents.
- **Save Time and Eliminate Purification Steps** with no reduction in yield.



**Template:** Human Genome  
100ng/50µL

- Targets:**
- 1: p53 0.5 kb (54%)
  - 2: FFAR2 1.0 kb (59%)
  - 3: DCLRE1A 2.0 kb (38%)
  - 4: p53 4.2 kb (48%)
  - 5: IGF2R 5.9 kb (50%)

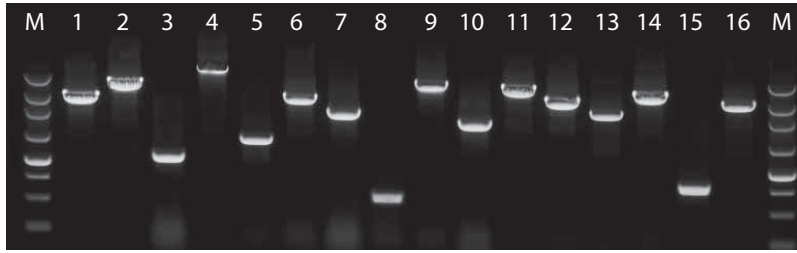
SapphireAmp® is registered trademark of TaKaRa Bio Inc. LA PCR technology is covered by U.S. Patent No. 5,436,149 issued to Takara Bio Inc. Takara Bio's Hot-Start PCR-Related products are licensed under U.S. Patent 5,338,671 and 5,587,287 and corresponding patents in other countries.



# TaKaRa

**Takara Bio Europe S.A.S.**  
www.takara-bio.eu

### Fast Insert Check using SapphireAmp® Fast PCR Master Mix

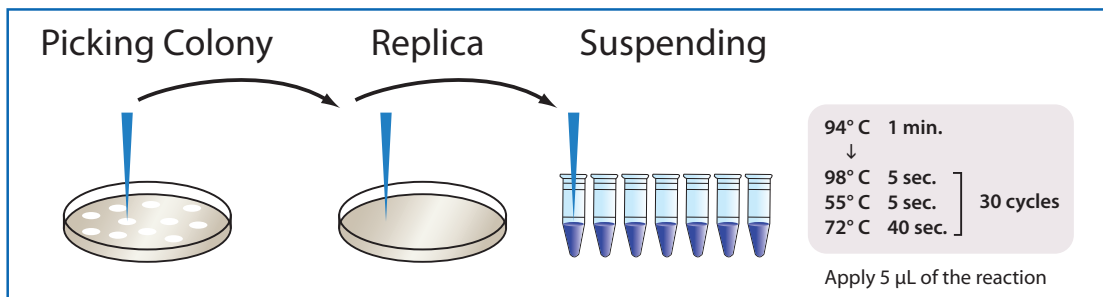


**Template:** mouse cDNA  
**Target Size:** 0.5-5 kb  
**Lanes 1-16:** Colony PCR (5 µL of reaction mixture applied)  
**M:** 250 bp DNA Ladder (Dye Plus)

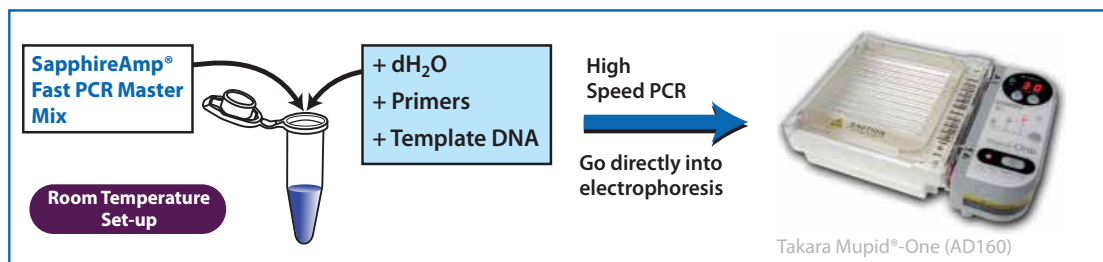


**Amplification of a Mouse cDNA Library (0.5 – 5kb insert fragments in pUC118) was Successfully Performed.** Sixteen randomly picked *E. coli* colonies transformed from a mouse cDNA library (pUC118 vector with inserts 0.5 to 5 kb in length) were amplified using SapphireAmp® Fast PCR Master Mix, and M4 and RV primers. All 16 clones checked were confirmed to contain 0.5 to 5 kb inserts (see gel data above). Excellent yields and simple, reliable colony PCR was performed successfully using SapphireAmp®. The above experiment was performed using 50 µL reactions in accordance with the product protocol however excellent amplifications were also observed when smaller reaction quantities were used (20-25 µL reactions).

### Successful Colony PCR performed using SapphireAmp® Fast PCR Master Mix



### SapphireAmp® Fast PCR Master Mix saves time



Length	TaKaRa SapphireAmp® Fast PCR Master Mix	Company P	Company T
0.5 kb	<b>50 min</b>	1 hr 35 min	1 hr 30 min
1 kb	<b>55 min</b>	1 hr 50 min	1 hr 45 min
2 kb	<b>1 hr</b>	2 hr 20 min	2 hr 15 min
4 kb	<b>1 hr 30 min</b>	3 hr 20 min	3 hr 15 min
6 kb	<b>2 hr</b>	4 hr 20 min	4 hr 15 min

Ordering Information		
Product Name	Catalog #	Quantity
SapphireAmp® Fast PCR Master Mix	RR350A	160 rxn
SapphireAmp® Fast PCR Master Mix	RR350B	800 rxn



TB 633184 EU