Charm Hot Start PCR Mix (2X)

Catalog No. 5600-01: Charm Hot Start PCR Mix, Size: 1.25 ml x2 (100 reactions)
Catalog No. 5600-02: Charm Hot Start PCR Mix, Size: 1.25 ml x5 (250 reactions)
Catalog No. 5600-06: Charm Hot Start PCR Mix, Size: 1.25 ml x12 (600 reactions)

Store at -20°C
Charm Hot Start PCR Mix is stable for two years when stored at -20°C. It may be stored at 4°C to avoid the necessity of repeated thawing of the mix before assembling the PCR. No detectable reduction of PCR performance was observed after storage for 12 months at 4°C. Repeated freeze-thaw cycles do not impair PCR performance.

Description
Charm Hot Start PCR Mix is a ready-to-use reaction cocktail for PCR amplification of up to 4 kb. It is a 2X concentrated formulation that contains all necessary components including Charm *Taq* DNA polymerase, ant-*Taq* antibodies, magnesium, and dNTPs, with the exceptions of primers and template. Sufficient reagents are provided for 100, 250, or 600 PCR amplification reactions of 50 µl reaction volume each.

Charm Hot Start PCR Mix is an antibody based hot start system that allows for convenient room temperature reaction set-up and reduces PCR optimization effort and contamination risk.

Features
- Room temperature reaction set-up
- Automatic hot start PCR
- High sensitivity, high specificity, and high yield
- Superior reliability and robustness
- Convenient ready-to-use 2XPCR Mix
- Ideal for everyday PCR

Kit components

5600-01	5600-02	5600-06
100 Rxns	**250 Rxns**	**600 Rxns**
2X1.25 ml	5X1.25 ml	12X1.25 ml

Product Qualification
Charm Hot Start PCR Mix is functionally tested for amplification of a 1 kb target with 20 ng of human genomic DNA.

Recommended PCR Reaction Protocol
The following protocol is suggested as a starting point.

Components	25 µl Rxn	50 µl Rxn	Final Concentration
Charm Hot Start PCR Mix (2X)	12.5 µl	25 µl	1X
Forward Primer (10 µM)	0.5 µl	1.0 µl	200 nM (Variable:100 - 500 nM)
Reverse Primer (10 µM)	0.5 µl	1.0 µl	200 nM (Variable:100 - 500 nM)
Template DNA	x µl	x µl	Variable (fg - µg)
Final Volume (µl)	25 µl	50 µl	

1. Assemble the reaction at room temperature.
2. Cap reaction vessels, gentle mix, and load into a thermal cycler.
3. Incubate tubes in thermal cycler at 94°C for 1 to 2 min to completely denature the template.
4. Perform 25-40 cycles of PCR amplification as follows:
   - Denature 94°C for 15–30 s
   - Anneal 55-60°C for 15–30 s
   - Extend 72°C for 1 min per kb
   - Hold at 4°C until use
5. Analyze PCR products by gel electrophoresis.