

Data sheet

This data sheet provided for information only

HOT-START PCR^{COLOR} Core Kit

RESEARCH USE ONLY

Set of reagents for HS-PCR amplification

HS PCR^{COLOR} Core Kit is the set of separate high quality reagents for PCR amplification.

Cat. No.	Pack	Conc.
Dia-CHR0510	100 rxn	-
Dia- CHR0511	500 rxn	-

Stability:

All components are stable for 24 months at -20°C.

CONTENT:

250U SmarTaq Polymearse
 0.4ml of dNTP's MIX (2.5mM each of dNTP's)
 0,5ml 50 mM MgCL₂ Stock solution
 1.0 ml 5X ColoRed Reaction Buffer: 166mM (NH₄)₂SO₄; 670mM This-HCL (pH 8.8 at 25°C),
 0.1% Tween 20
 5 ml PCR Grade Water

DESCRIPTION

SmarTaq Polymerase is the **antibody-blocked** version of recombinant DiaTaq Polymerase optimized for "hot-start" mode reactions. It catalyzes the polymerization of nucleotides into duplex DNA in 5'- 3' direction in presence of magnesium. Activation of **SmarTaq** occurs automatically during the first denaturation step of PCR assay, over 70°C. **HS PCR^{COLOR} Core Kit**, contains inherent **red dye**, is recommended for use in PCR reactions with the complex, low-copy number DNA templates where routine PCR enzymes are insufficient and allows the **direct loading** of the PCR reaction product onto gel after amplification **5X Reaction buffer** optimized for high specificity PCR with **SmarTaq** DNA Polymerase.

Recommended PCR assay

50µl PCR assay		Final Conc.
0.5µl	SmarTaq Polymerase	2.5U
10 µl	5X ColoRed RB	1X
1.5-2.5µl	50mM MgCL ₂ Solution	1.5-2.5mM
4 µl	dNTP's MIX	0.2mM each
0.2-1µM	each Primer	
Variable*	DNA Template	
To 50µl	PCR Grade Water	

* - depending on DNA template initial concentration

For optimal specificity of amplification an individual optimization of concentrations/parameters may be necessary for each new DNA template and/or primers pair

APPLICATIONS:

- Routine PCR
- Primer extension
- Starting optimization

STORAGE CONDITIONS :

Store **all components** of HS PCR^{COLOR} Core Kit at -20 °C (for long term storage).

SHIPPING CONDITIONS:

Should be shipped at ambient temperature
 For long distance shipments preferably in **Blue Ice**