

2×KunGre™ PCR Master Mix (With Dye)使用说明书

产品名称	单位	货号
2×KunGre™ PCR Master Mix (With Dye)	1 ml	GT101

【储存条件】

长期保存，请置于-20°C，有效期 24 个月。经常使用，可置于 4°C 保存至少六个月。注：如保存温度长期低于-30 °C 或遇干冰急冻，本产品颜色会变浅直至变黄（与急冻程度相关）。经测试，该变化不影响使用效果。

【产品简介】

本产品包含高纯度 Taq DNA 聚合酶、dNTPs、MgCl₂、反应缓冲液、PCR 反应的增强剂、优化剂以及稳定剂，浓度为 2×。具有快速简便、灵敏度高、特异性强、稳定性好等优点。可最大限度地减少人为误差，可用于高特异性 PCR 反应及 GC 含量较高 (>60%) 具有二级结构等复杂模板的扩增和大规模基因检测。PCR 产物的 3' 端附有一个突出的"A"碱基，纯化后可直接用于 TA 载体克隆。本产品有含蓝色染料，在 PCR 反应完成后，不需添加上样缓冲液即可直接上样进行电泳；也可经过纯化处理，以用于酶切、连接、荧光测序等后续操作。蓝色染料可指示电泳进程，其迁移速度在 1% TAE 琼脂糖凝胶中与 500 bp 双链 DNA 片段相近。

【产品组份】

2×KunGre™ PCR Master Mix (With Dye)	1ml
Nuclease-free ddH ₂ O	1ml

【适用范围】

1. 基因检测：本产品不同批次之间误差很小，特别适合大规模基因检测、半定量 PCR 实验和微量 DNA 的检测。
2. 用于从复杂模板中如基因组等扩增 PCR 产物，如表达基因的克隆、基因的定点突变和细胞内基因点突变的分析（SNP）等。

【所需试剂】 使用者仅需准备 PCR 反应的模板、引物和蒸馏水等。

【操作示例】

按下表配制 PCR 反应体系（冰上操作）：

Template DNA*	<1μg
2×KunGre™ PCR Master Mix (With Dye)	10 μl
Primer 1 (10 μM)	0.5 μl
Primer 2 (10 μM)	0.5 μl
Nuclease-free ddH ₂ O 补足至	20 μl

建议的 PCR 条件：

95°C	3 min.
32-36 cycles of:	
94°C	25 sec.
55-64°C	25 sec.
72°C	30 sec.-1 min. /1 kb DNA
72°C	5 min.
4°C	forever

<*模板量：10~1000 ng 基因组 DNA，1~30 ng 质粒，或 1~2 μl RT-PCR 反应后的 cDNA。以上举例为常规 PCR 反应系统，仅供参考。实际反应条件因模板、引物等的结构不同而异，需根据模板、引物、目的片段的特点设定最佳反应条件，并根据比例放大或缩小反应体系>。

【备注】

本产品仅供科研使用。在确认产品质量出现问题时，本公司承诺为客户免费更换等量的质量合格产品。

2×KunGre™ PCR Master Mix (With Dye)

Introduction

This product contains high-purity Taq DNA polymerase, dNTPs, MgCl₂, reaction buffer, PCR reaction enhancer, optimizer, and stabilizer at a concentration of 2 ×. It has the advantages of fast and simple, high sensitivity, strong specificity and good stability. It can minimize human error, and can be used for high specific PCR reaction and high GC content (> 60%) with secondary structure and other complex template amplification and large-scale gene detection. The PCR product has a prominent "A" base attached to the 3' end, which can be directly used for TA vector cloning after purification. This product contains blue dye. After the PCR reaction is completed, you can directly load the sample for electrophoresis without adding a loading buffer; it can also be purified for subsequent operations such as enzyme digestion, ligation, and fluorescent sequencing. Blue dye indicates the progress of electrophoresis, and its migration speed is similar to that of 500 bp double-stranded DNA fragment in 1% TAE agarose gel.

Components

Cat. No.	Description	Quantity
GT101	2×KunGre™ PCR Master Mix (With Dye)	1 ml

Note: 2×KunGre™ PCR Master Mix (With Dye) contains Taq DNA Polymerase, 300 μM dNTP each, 20 mM Tris-HCl (pH8.7), 100 mM KCl, 3 mM MgCl₂.

Shipping and Storage

Keep at -20°C for long-term storage. 2×KunGre™ PCR Master Mix (With Dye) are stable at 4°C for six months. For daily use, we recommend keeping an aliquot at 4°C.

Applications

- 1) Gene test, half-QPCR and detection of trace DNA.
- 2) Gene cloning, SNP analysis and site-directed mutagenesis.

Protocol

PCR reaction system

Template DNA	<1μg
2×KunGre™ PCR Master Mix (With Dye)	10 μl
Primer 1 (10 μM)	0.5 μl
Primer 2 (10 μM)	0.5 μl
Nuclease-free ddH ₂ O	Up to 20 μl

PCR reaction conditions

Procedure	Temperature	Time	
Pre-denaturation	94°C	3 min.	
Denaturation	94°C	25 sec.	} 32-36cycles
Annealing	55–64°C	25 sec.	
Extension	72°C	30 sec.-1 min./1 kb DNA	
Final extension	72°C	5 min.	
Keeping	4°C	forever	