EPIGENTEK
Complete Solutions for Epigenetics

EpiQuik Red Taq DNA Polymerase

(Catalog No. R12011)

Description

EpiQuik Red Taq DNA Polymerase has a special formulation with added inert red dye. This makes it very suitable for standard applications. Strong red color of the enzyme allows user to check the polymerase addition and verify adequate mixing. Reaction products are ready for direct gel loading and the dye serves as a marker for electrophoresis progress monitoring. EpiQuik Red Taq DNA Polymerase has 5'→3' DNA synthesis activity.

Concentration

1 unit/µl (One unit of the enzyme catalyzes the incorporation of 10 nanomoles of deoxyribonucleotides into a polynucleotide fraction in 30 min at 70°C).

Composition

- EpiQuik Red Taq DNA Polymerase in Storage Buffer: 20 mM Tris-HCl (pH 8.0), 1mM DTT, 0.1 mM EDTA, 100 mM KCl, 0.5% Nonidet P40, 0.5% Tween 20 and 50% glycerol
- 10x Reaction Buffer: 100 mM Tris-HCl (pH 8.8 at 25°C), 500 mM KCl, 0.8% Nonidet P40
- 10x Reaction Buffer with (NH4)2SO4: 750mM Tris-HCl (pH 8.8 at 25°C), 200 mM (NH4)2SO4, 0.1% Tween 20
- 25 mM MgCl2 Solution

Quality Data

Activity and stability tested at 20, 30 and 40 cycles of PCR reactions at 95°C. Tested for the absence of human DNA contamination by PCR with Alu-specific primers.

Applications

- Suited for a wide range of PCR assays
- Easy visualization of enzyme addition
- Visualization of complete reaction mixing
- Direct loading of samples following amplification

Recommended PCR Reaction Mix

Component	Quantity
EpiQuik Red Taq (1 U/µl)	1.25-2.5 U
10x Reaction Buffer (or with (NH4)2SO4)	5 µl (1x)
25 mM MgCl2	3-5 µl (1.5-2.5 mM)
10 mM dNTP mix	1 µl (200 µM)
Primer Forward	0.3 -1 µM
Primer Reverse	0.3 -1 µM
DNA template	1-100 ng/µl
H2O PCR grade	Up to 50 µl
Total	50 µl

Recommended PCR Cycles

Cycle step	Temp.	Time	Cycles
Initial denaturation	95°C	3-5 min	1
Denaturation	95°C	30-60 s	26-35
Annealing	50-68°C	30-60 s	26-35
Elongation	72°C	1-4 min	26-35
Final elongation	72°C	5-10 min	1

IMPORTANT: Annealing temperature should be 2-6°C lower than the primer melting temperature.

Safety Warnings and Precautions

This product is designed for research purposes and in vitro use only. According to common laboratory safety practice, it is recommended to wear protective clothing, gloves and safety glasses. Please refer to www.epigentek.com for Material Safety Data Sheet of the product. Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required.

Storage Conditions

Store at -20°C. Guaranteed stable for 12 months when properly stored.

Ordering Information

Products	**Size**	**Cat. No.**
EpiQuik Red Taq DNA Polymerase	500 Units	R12011-1
EpiQuik Red Taq DNA Polymerase	1000 Units	R12011-2
EpiQuik Red Taq DNA Polymerase	2500 Units	R12011-3