

TransDirect® Blood PCR Kit

Cat. No. AD401

Storage: at -20°C for two years

Description

TransDirect® Blood PCR Kit is designed for DNA amplification from whole blood without DNA extraction. 2×TransDirect® PCR SuperMix (+dye) is highly resistant to various PCR inhibitors present in blood.

Highlights

- No DNA extraction needed.
- Ready-to-use SuperMix.

Applications

- Fresh or frozen blood stored in EDTA, heparin or citric acid
- Fresh or dried blood without anticoagulant
- Human oral epithelial cells
- Amplification of genomic DNA fragment up to 4 kb

Species

Blood

Recommended amount of Template for PCR (for 50 µl reaction)

Template	Treatment	Amount for PCR
Human blood	No treatment needed	0.5-2 µl
Mouse blood	Dilute with water or TE	1 µl, with the dilution ratio of 1/20-1/80
Bird blood	Dilute with water or TE	1 µl, with the dilution ratio of 1/1-1/100
Cultured cells	Collect cells, discard culture medium by centrifugation. Suspend cell pellet with water or TE. Remove culture medium by centrifugation. Resuspend cell pellet with of water or TE.	10-10 ⁵ cells
Epithelial cells	Dissolve in 50 µl water or TE	0.5-5 µl
Dried blood	Dissolve dry blood or samples containing blood (e.g. paper, clothes, etc.) into 50 µl water or TE. Incubate at room temperature for 15 minutes (vortex for 2-3 times during this procedure), then heat at 95-100°C for 15 minutes. Centrifuge and collect the supernatant .	0.5-5 µl

Kit Contents

Component	AD401-01	AD401-02
2×TransDirect® PCR SuperMix (+dye)	1 ml	5×1 ml
Nuclease-free Water	5 ml	25 ml

Reaction Components

Component	Volume	Final Concentration
Template DNA	Variable ($\leq 1 \mu\text{l}$)	as required
Forward Primer (10 μM)	0.4 μl	0.2 μM
Reverse Primer (10 μM)	0.4 μl	0.2 μM
2 \times TransDirect [®] PCR SuperMix (+dye)	10 μl	1 \times
Nuclease-free Water	Variable	-
Total volume	20 μl	-

Thermal cycling conditions

94°C	5-10 min	} 30-40 cycles
94°C	30 sec	
50-60°C	30 sec	
72°C	1-2 kb/min	
72°C	5-10 min	

Notes

- Completely thaw the contents in the tube and mix well before use.
- Too much blood sample could inhibit PCR amplification, please refer to “Recommended Amount of Template for PCR” to set up reaction.
- PCR product may show turbid appearance due to denatured haemoglobin. PCR product can be directly used for gel electrophoresis.
- We recommend to purify PCR products for downstream applications.
- This kit is not suitable for PCR with purified DNA as templates.

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