

DirEx™ Fast-Blood stain

Single-tube PCR-template DNA preparation system

Cat. No. 260-041

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
▪ DirEx™ Fast-Blood stain	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ Fast-Blood stain provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ Fast is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ Fast is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ Fast, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

GeneAll® DirEx™ Fast-Blood stain should be stored at -20°C and is stable for 1 year under this condition.

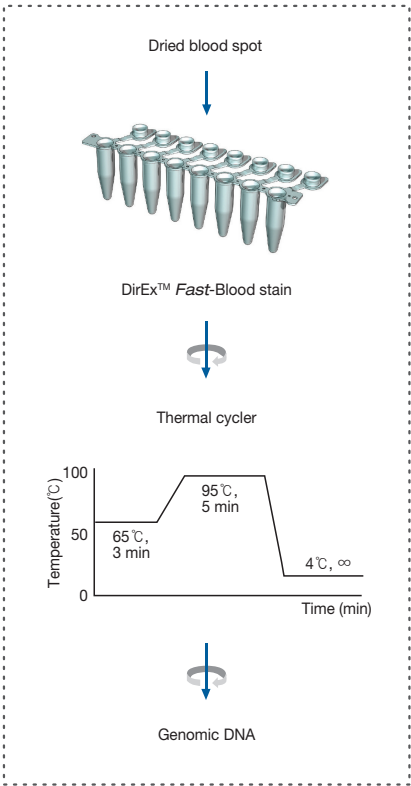
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of several samples simultaneously. Therefore, always wear gloves and mask, and use sterile scissors, scalpel or disposable plastic wares to collect blood stain for DirEx™ Fast system.

Brief procedure



Protocol

1. Place a 5 mm punch-out disc from dried blood spot in DirEx™ Fast-Blood stain tube and vortex to mix for 10 seconds.

If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.

2. Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]

3. After incubation, vortex to mix for 5 seconds and spin down briefly to remove any drops from inside of the lid.

4. Use the supernatant immediately as template DNA for analysis. For long-term storage, transfer the supernatant to a new tube and store in a freezer.

For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.

DirEx™ Fast-Buccal swab

Single-tube PCR-template DNA preparation system

Cat. No. 260-061

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
▪ DirEx™ Fast-Buccal swab	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ Fast-Buccal swab provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ Fast is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ Fast is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ Fast, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

GeneAll® DirEx™ Fast-Buccal swab should be stored at -20°C and is stable for 1 year under this condition.

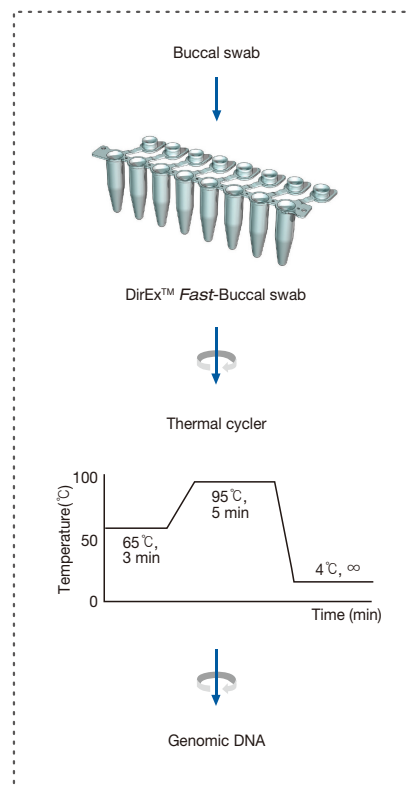
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of several swab samples simultaneously. Therefore, always wear gloves and mask, and use sterile scissors, scalpel or disposable plastic wares to collect sample for DirEx™ Fast system.

Brief procedure



Protocol

1. Place a head of cotton swab scraped more than 5-6 times against the inside of cheek in DirEx™ Fast-Buccal swab tube and vortex to mix for 10 seconds.

If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.

2. Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]

3. After incubation, vortex to mix for 5 seconds and spin down briefly to remove any drops from inside of the lid.

4. Use the supernatant immediately as template DNA for analysis. For long-term storage, transfer the supernatant to a new tube and store in a freezer.

For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.

DirEx™ Fast-Cigarette

Single-tube PCR-template DNA preparation system

Cat. No. 260-071

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
■ DirEx™ Fast-Cigarette	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ Fast-Cigarette provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ Fast is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ Fast is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ Fast, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

GeneAll® DirEx™ Fast-Cigarette should be stored at -20°C and is stable for 1 year under this condition.

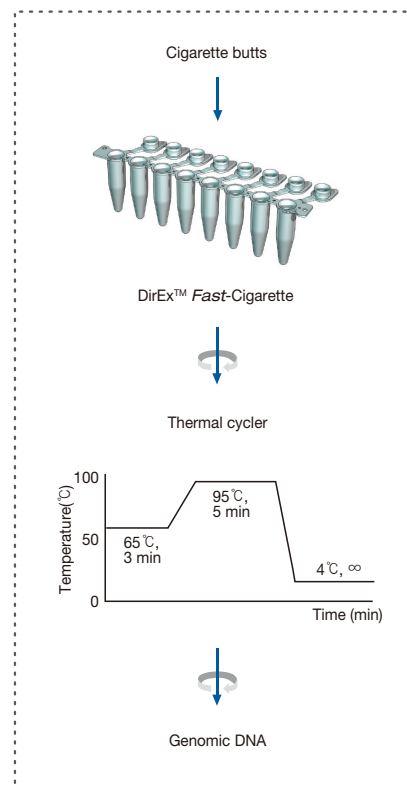
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of several cigarette butt samples simultaneously. Therefore, always wear gloves and mask, and use sterile scissors, scalpel or disposable plastic wares to collect sample for DirEx™ Fast system.

Brief procedure



Protocol

1. Cut off a 1x1 cm piece of outer filter paper from the end of cigarette butts. Place the sample in DirEx™ Fast-Cigarette tube and vortex to mix for 10 seconds.

If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.

2. Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]

3. After incubation, vortex to mix for 5 seconds and spin down briefly to remove any drops from inside of the lid.

4. Use the supernatant immediately as template DNA for analysis. For long-term storage, transfer the supernatant to a new tube and store in a freezer.

For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.

DirEx™ *Fast-Cultured cell*

Single-tube PCR-template DNA preparation system

Cat. No. 260-021

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
▪ DirEx™ <i>Fast-Cultured cell</i>	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ *Fast-Cultured cell* provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ *Fast* is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ *Fast* is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ *Fast*, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

DirEx™ *Fast-Cultured cell* should be stored at -20°C and is stable for 1 year under this condition.

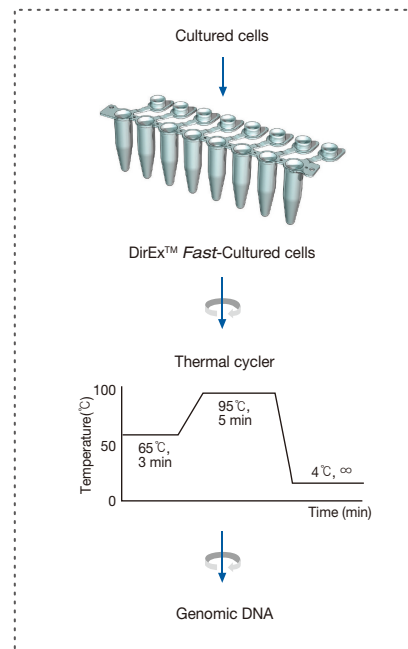
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of several cultured cell samples simultaneously. Therefore, always wear gloves and mask, and use sterile plastic wares to place cultured cells in DirEx™ *Fast* system.

Brief procedure



Protocol

1. Place cultured cells in DirEx™ *Fast-Cultured cell* tube and vortex to mix for 10 seconds.

▪ Recommended sample volume.

- Mammalian cells : 10 ul of cell suspension containing up to 5×10^6 cells
- Bacterial cells : 15 ul of cell suspension ($OD_{600nm}=1.5$) or one single colony picked from a solid media

If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.

2. Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]

3. After incubation, vortex to mix for 5 seconds and spin down briefly to remove any drops from inside of the lid.

4. Use the supernatant immediately as template DNA for analysis.
For long-term storage, transfer the supernatant to a new tube and store in a freezer.

For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.

DirEx™ Fast-Hair

Single-tube PCR-template DNA preparation system

Cat. No. 260-051

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
■ DirEx™ Fast-Hair	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ Fast-Hair provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ Fast is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ Fast is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ Fast, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

GeneAll® DirEx™ Fast-Hair should be stored at -20°C and is stable for 1 year under this condition.

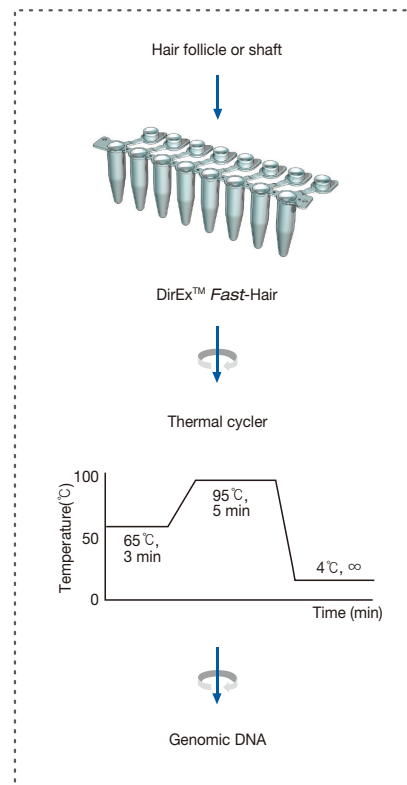
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of hair samples simultaneously. Therefore, always wear gloves and mask, and use sterile scissors, scalpel or disposable plastic wares to collect sample for DirEx™ Fast system.

Brief procedure



Protocol

- Place 2~3 hair roots or shafts of 1cm in length from plucked hair in DirEx™ Fast-Hair tube and vortex to mix for 10 seconds.**
If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.
- Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]**
- After incubation, vortex to mix for 5 seconds and spin down briefly to remove any drops from inside of the lid.**
- Use the supernatant immediately as template DNA for analysis.**
For long-term storage, transfer the supernatant to a new tube and store in a freezer.
For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.

DirEx™ Fast-Tissue

Single-tube PCR-template DNA preparation system

Cat. No. 260-011

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
DirEx™ Fast-Tissue	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ Fast-Tissue provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ Fast is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ Fast is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ Fast, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

GeneAll® DirEx™ Fast-Tissue should be stored at -20°C and is stable for 1 year under this condition.

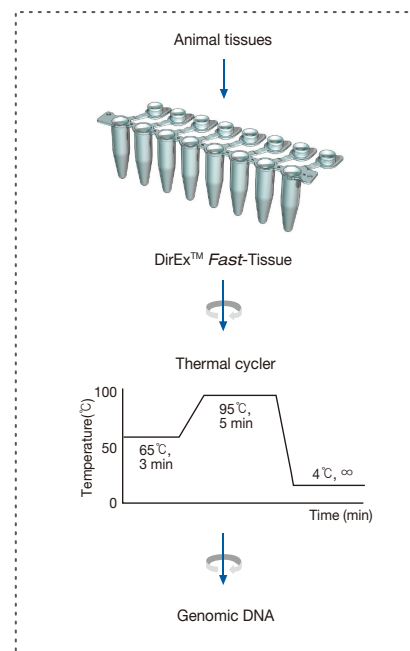
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of several tissue samples simultaneously. Therefore, always wear gloves and mask, and use sterile scissors, scalpel or disposable plastic wares to place tissue sample in DirEx™ Fast system.

Brief procedure



Protocol

1. Place 10 mg of animal tissue in DirEx™ Fast-Tissue tube and vortex to mix for 10 seconds.

Especially, Tail snips should be minced finely with sterile scissors or scalpel. If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.

2. Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]

3. After incubation, vortex to mix for 5 seconds and spin down briefly to remove any drops from inside of the lid.

4. Use the supernatant immediately as template DNA for analysis. For long-term storage, transfer the supernatant to a new tube and store in a freezer.

For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.

DirEx™ Fast-Whole blood

Single-tube PCR-template DNA preparation system

Cat. No. 260-031

for research use only

Kit Contents

(96 prep/kit)

Components	Quantity
■ DirEx™ Fast-Whole blood	96 tubes (0.2 ml 8-tube strip x 12 ea)

Description

GeneAll® DirEx™ Fast-Whole blood provides easy and simple preparation of PCR template DNA without laborious extraction process. It has a pre-mixed format which contains all reaction reagents in 8-strip tube and ready to use. The whole procedure can be completed in a single tube and it takes just 8 minutes. The procedure of DirEx™ Fast is composed of two steps, incubation and inactivation, which are the lysis of sample and the heat-inactivation of proteases respectively.

DirEx™ Fast is basically designed to use PCR thermal cycler for whole procedure, although the conventional bath can be employed. After adding a target sample into the DirEx™ Fast, all you have to do is just to start the thermal program. This simple procedure requires neither the centrifugation step nor the additional handling, and it facilitates the high throughput preparation of PCR template DNA. The simultaneous preparation from many samples with minimum handling will help guarantee the fidelity of the analysis.

Storage conditions

GeneAll® DirEx™ Fast-Whole blood should be stored at -20°C and is stable for 1 year under this condition.

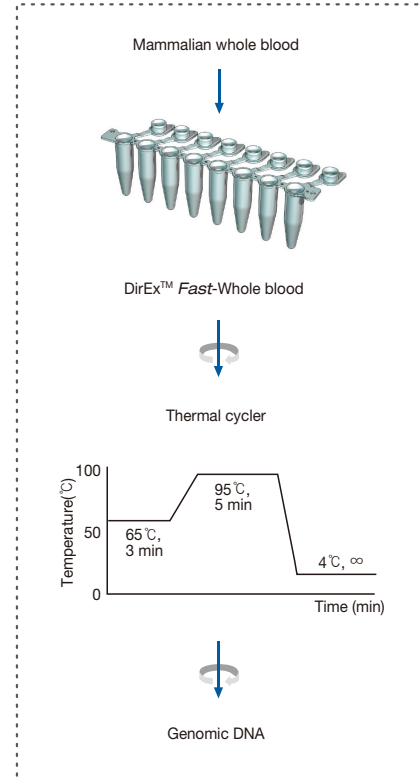
Quality Control

GeneAll® DirEx™ series is manufactured in strictly clean condition. PCR amplification assay as a quality control is carried out from lot to lot thoroughly and only the qualified lot is approved to be delivered.

Precaution of DNA cross-contamination

DNA cross-contamination can occur by handling of several blood samples simultaneously. Therefore, always wear gloves and mask, and use disposable plastic wares to place blood in DirEx™ Fast system.

Brief procedure



Protocol

1. Place 20 ul of mammalian whole blood in DirEx™ Fast-Whole blood tube and vortex to mix for 10 seconds.

If the sample is attached on lid or wall surface of the tube after vortex, spin down briefly to collect the samples to bottom of the tube.

2. Incubate the sample using a PCR thermal cycler programmed as below : [65°C, 3 minutes → 95°C, 5 minutes → 4°C, ∞]

3. After incubation, vortex to mix for 5 seconds and centrifuge at 4,500 rpm for 60 seconds.

The debris containing PCR inhibitors should be removed from the lysate. Centrifugation at 4,500 rpm for 60 seconds is sufficient to pellet unnecessary debris of blood.

4. Use the supernatant immediately as template DNA for analysis.
For long-term storage, transfer the supernatant to a new tube and store in a freezer.

For best results in PCR, it is recommended to use 1~2 ul of the prepared DNA solution for 20 ul PCR reaction.