BlackCheckTM

BlackCheck ILTV/FPV/FPV-REV/REV Multi Detection Kit

Product Information

Product code BCIFFR-96T

Component BlackCheck PCR PreMix Kit for ILTV/FPV/FPV-REV/REV Multi Detection

Storage Conditions and Stability

It is recommended to store this kit at -20°C and use it immediately after thawing. Repeated freezing and thawing can seriously affect the results.

Contents of BlackCheck PCR PreMix Kit

BlackCheck PCR PreMix for ILTV/FPV/FPV-REV/REV multi detection-96 TEST (8 strip x 12, 15µl/tube) Positive control DNA mixture (Each 250pg/µl)

Description

The most common respiratory diseases in chickens are caused by four types: Infectious laryngotracheitis virus(ILTV), Fowlpox virus(FPV), Gamma retrovirus(REV), and a mutant fowlpox virus(FPV-REV) in which the reticuloendotheliosis virus gene has been inserted into the gene of the fowlpox virus. When this disease occurs, symptoms appear in various parts of the body, such as the skin, oral cavity, and respiratory mucosa, and the immune function is reduced due to damage to the immune organs, making the chickens very vulnerable to secondary infections. This can cause serious damage to the farm's dairy farms, so it is necessary to respond quickly to the disease to reduce the scale of damage. If the diagnostic kit detects the virus that infects chickens using the PCR method, it is possible to prevent widespread spread in advance and respond quickly to respiratory diseases in chickens.

The BlackCheck PCR PreMix (ILTV/FPV/FPV-REV/REV) Multi Detection Kit is a multiplex PCR kit designed to detect viruses causing respiratory or immune diseases in poultry in a single tube. It can quickly and accurately determine infection by simply adding the DNA sample.

Characteristics

- Convenient: This kit includes all the components necessary for the entire PCR process (PCR premix, primer pairs), so you can prepare a quick reaction only by preparing a DNA sample.
- Responsiveness: It contains primers that specifically bind to the causative genes of ILTV, FPV, FPV-REV, and REV.
 Therefore, even if a small amount of template DNA is used, it reacts sensitively and is easy to observe the band.
- Stability: It is a frozen liquid-type premix that provides long-term stability when stored frozen.
- Reproducibility: We provide only products verified through our regular and systematic QC system during product production for each lot.

Standard reaction protocol

1. Preparation of Genomic DNA Sample

Extract gDNA from test samples using a genomic DNA (gDNA) extraction kit, dissolve in nuclease-free water, and store frozen until testing.

2. Reaction condition

Add the following components to a thin-walled PCR tube:

1) BlackCheck PCR PreMix (ILTV/FPV/FPV-REV/REV) Multi Detection Kit:

BlackCheck PCR PreMix	15.0 µl
Nuclease-Free water	x µl
DNA template (>0.1ng gDNA)	x µl
Total reaction volume	20 µl

Note: Molecular-Grade Water is used as the negative control. For positive control reactions, add 2uL (each 500pg) of the Positive DNA mixture.

2) PCR Cycling

Denaturation	94°C, 5 min
	94°C, 45 sec
PCR (x34)	58°C, 48 sec
	72°C, 45 sec
Final extension	72°C, 5 min

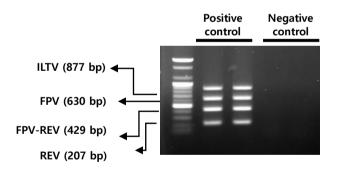
Check the Result

After electrophoresis by loading 10 µl of the PCR reaction solution directly on a 1% agarose gel, check whether the gene amplification of ILTV (877bp), FPV (630bp), FPV-REV (429bp), REV (207bp) or not.

- If the negative control is detected as negative, the normal results are determined.
- A positive determination is made when ILTV, FPV, FPV-REV, and REV are detected simultaneously or separately because

Target genes	Predicted size
ILTV (Infectious laryngotracheitis virus)	877 bp
FPV (Fowlpox virus)	630 bp
FPV-REV (Fowlpox virus with Retrovirus integrated)	429 bp
REV (Gamma-retrovirus)	207 bp

Ex) PCR result of The BlackCheck PCR PreMix (ILTV/FPV/FPV-REV/REV) Multi Detection Kit



Cautions

This kit is a research reagent and cannot be used to diagnose infection.



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