

DIAGNOSTICS DIVISION

LiliF® Avian MDx

TOTAL AVIAN DIAGNOSTICS SOLUTION

Complete molecular workflow from screening to confirmation

AVIAN INFLUENZA VIRUS (AIV)

Avian influenza (AI), caused by influenza A virus, affects a wide range of birds, from chickens and turkeys to wild and pet birds. Some strains, particularly the highly pathogenic H5N1, can lead to high mortality and have drawn global attention due to outbreaks in wild birds. While generally species-specific, H5N1 can also infect mammals, including humans, making it a virus of significant concern.

Source: OIE Terrestrial Animal Health

✓ Full Line-up System in Avian Disease Diagnosis

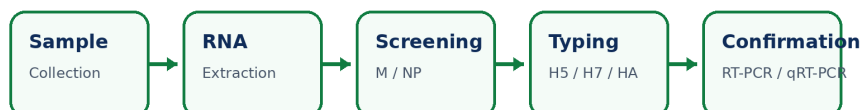
Provides a complete molecular diagnostic solution from screening to confirmation using conventional RT-PCR and Real-time PCR assays.

✓ Reliable and Confident Results

Incorporates internal positive controls and advanced primer technologies to provide highly accurate and consistent detection of avian pathogens.

✓ Fast, Accurate, and User-Friendly

Streamlines the veterinary testing workflow with Maxime™ dried PCR premixes, ensuring excellent sensitivity, specificity, and repeatability.



AIV HA

H1-H16

LiliF® Avian MDx

IPC12020

LiliF® AIV HA (1-16) Multi-tube RT-PCR Kit**Cat. IPC12020 | Size: 6 T**

TARGET: Qualitative subtyping of all 16 Hemagglutinin (HA) serotypes (H1–H16) of Avian Influenza Virus (AIV).

DIAGNOSTIC PRINCIPLE:

Employs one-step Reverse Transcription PCR (RT-PCR) to amplify extracted viral RNA in a single tube. Incorporates **CLP™ (Customized Linker Primer) technology**, which controls non-specific priming and optimizes T_m conditions to maximize specificity and sensitivity. Provided in a **Maxime™ dried premix format** to enhance pipetting precision, and contains **8-MOP** to prevent post-PCR carry-over contamination. Results are visualized by agarose gel electrophoresis.

AIV

NP • M • H5 • H7 • H9

LiliF® Avian MDx

IPC11009

LiliF® AIV Multi-tube RT-PCR Kit**Cat. IPC11009 | Size: 12 T**

TARGET: Qualitative screening of Avian Influenza Virus (AIV), targeting NP, M, H5, H7, and H9 genes.

DIAGNOSTIC PRINCIPLE:

Utilizes one-step RT-PCR combining reverse transcription of viral genomic RNA into cDNA with subsequent PCR amplification in a single reaction. Employs **CLP™ technology** to prevent non-specific band formation and **Maxime™ dry-lyophilized master mix** pre-dispensed in strip tubes. This eliminates manual master mix aliquoting steps, minimizing contamination risk and error. Target bands are verified via standard gel electrophoresis.

B. Probe-based One-Step Real-time RT-PCR Detection Systems

qRT-PCR Detection

AIV M

Type A / M gene
LiliF® Avian MDx
IP15004

LiliF® AIV M Real-time RT-PCR Kit

Cat. IP15004 | Size: 48 T

TARGET: Qualitative screening of Type A Influenza Virus by amplifying the highly conserved M (Matrix) gene.

DIAGNOSTIC PRINCIPLE:

Employs **probe-based Real-time Reverse Transcription PCR**. RNA extracted from specimens is converted into cDNA and amplified using primers specific to the **highly conserved M gene**. Fluorescent **TaqMan probes** target this sequence in real-time, emitting fluorescence detected by the qPCR optical module during the cycle. Incorporates high-performance RTase and Hot Start DNA polymerase in a stabilized premix to maximize sensitivity and avoid false positives.

AIV H5

H5 subtype
LiliF® Avian MDx
IP15005

LiliF® AIV H5 Real-time RT-PCR Kit

Cat. IP15005 | Size: 48 T

TARGET: Specific typing of H5 subtype (Highly Pathogenic Avian Influenza) targeting the H5 (HA) gene.

DIAGNOSTIC PRINCIPLE:

Combines reverse transcription and real-time PCR amplification in a single tube using **TaqMan probe-based chemistry**. Focuses on the **H5-specific sequence** of the Hemagglutinin gene. The fluorescent probe, upon binding to the amplified target cDNA, is cleaved by the 5' nuclease activity of the DNA polymerase, generating real-time fluorescence signals. Includes internal positive controls (IPC) to verify reaction efficiency and safeguard clinical quarantine diagnostics.

AIV H7

H7 subtype
LiliF® Avian MDx
IP15006

LiliF® AIV H7 Real-time RT-PCR Kit

Cat. IP15006 | Size: 48 T

TARGET: Specific typing of H7 subtype Avian Influenza Virus by targeting the H7 (HA) gene.

DIAGNOSTIC PRINCIPLE:

Developed in coordination with the Animal and Plant Quarantine Agency (APQA) for standardized genetic testing. Operates on real-time probe-based RT-PCR. Targeting the specific **H7 hemagglutinin sequence**, it monitors cDNA synthesis and exponential DNA amplification using sequence-specific primers and fluorophore-quenched probes, ensuring unmatched typing precision and high analytical sensitivity.



LiliF® IBV Real-time RT-PCR Kit

Cat. IP15281 | Size: 50 T

TARGET: Specific detection of Infectious Bronchitis Virus (IBV), a highly contagious poultry coronavirus.

DIAGNOSTIC PRINCIPLE:

Utilizes probe-based real-time PCR targeting the highly conserved regions of the IBV viral genome. The **one-step RT-PCR reaction** combines reverse transcriptase and **Hot Start PCR polymerase** to convert single-stranded RNA into cDNA and amplify it. Incorporates **CLP™ technology** to prevent primer-dimer formation and non-specific priming. A dual-channel optical profile detects the target pathogen and an Internal Positive Control (IPC) to prevent false-negative interpretation.



LiliF® NDV Real-time RT-PCR Kit

Cat. IP15456 | Size: 50 T

TARGET: Specific detection of Newcastle Disease Virus (NDV), a devastating avian paramyxovirus.

DIAGNOSTIC PRINCIPLE:

Designed as a probe-based one-step real-time RT-PCR. Targets NDV genomic RNA, performing **cDNA synthesis and amplification simultaneously** in a **stabilized master mix**. Utilizes **5' nuclease TaqMan probe chemistry** to isolate the NDV signal in the primary channel while monitoring amplification validation in the HEX/VIC channel via a pre-mixed internal control (IPC), ensuring robust diagnostics in diagnostic labs.

Cat. No.	Product Name	Technology	Volume
IPC12020	LiliF® AIV HA (1-16) Multi-tube RT-PCR Kit	Conventional RT-PCR	6 Tests
IPC11009	LiliF® AIV Multi-tube RT-PCR Kit	Conventional RT-PCR	12 Tests
IP15004	LiliF® AIV M Real-time RT-PCR Kit	Real-time RT-PCR	48 Tests
IP15005	LiliF® AIV H5 Real-time RT-PCR Kit	Real-time RT-PCR	48 Tests
IP15006	LiliF® AIV H7 Real-time RT-PCR Kit	Real-time RT-PCR	48 Tests
IP15281	LiliF® IBV Real-time RT-PCR Kit	Real-time RT-PCR	50 Tests
IP15456	LiliF® NDV Real-time RT-PCR Kit	Real-time RT-PCR	50 Tests

iNtRON Biotechnology, Inc.

Global Leader in Diagnostics and Reagent Solutions

[See more AIV-related products](#)

Technical Support: tech@intronbio.com

Tel: +82-31-739-5741 | Fax: +82-31-739-5264