

Introduction

Avian influenza (AI) is a viral disease affecting the respiratory, digestive and/or nervous system of many species of birds. There are 15 haemagglutinins and 9 neuraminidases subtypes of avian influenza A virus (AIV), giving rise to hundreds of variations on the 'HxNy' combination. AIV infects chickens, turkeys, ducks and variety of wild birds with different level of pathogenicity from low to high.

RapiGEN AIV Ag test kit is a solid phase chromatographic immunoassay with monoclonal antibody to the highly conserved nucleocapsid protein of AIV type A for the specific detection of antigen in cloaca, trachea and ground feces. This kit has been found to identify AIV A types with a high degree of accuracy

Specifications

- Principle: immunochromatographic assay, Gold conjugate; monoclonal anti-nucleocapsid protein of AIV Test line detector; monoclonal anti-nucleocapsid protein of AIV
- Detection; Avian influenza type A virus (H1~H15)
- Specimen: avian cloaca, trachea and ground feces
- Sensitivity: **100% by farm (3/3), 86% by individual (86/100)**
- Specificity: **99.1% (2/243)**
- No cross reaction: NDV, IBV, IBDV, Mycoplasma and E.coli
- Detection limit: 0.125 HAU (Hemagglutination Unit)
- Detection time; 20-30 minutes
- Shelf life: 18 months
- Storage temperature: 2~30°C
- Packing size: 10 multi-device × 3 Tests/Kit and 20 mono-device Tests/Kit

Features

- It is recommend to test birds shown strong symptom in AIV suspected flock
- Smart sample collection tube; Simple sample collection and experiment, Protection of human, animal and environment from contamination with putative infectious agents
- Quick screening of AIV in the field or laboratory without additional equipment and technical skill
- High sensitivity even in duck farm
- Detection of avian influenza type A viruses (H1~H15)
- Saving labor and time
- High specificity to other avian virus and bacteria.

Table 1. The result of duck farm confirmed infection by avian influenza virus with RT-PCR method.

No. of Specimen	RapiGEN AIV Ag test		
	Trachea	Cloacal	Ground feces
Farm No 1	18/20	26/30	4/4
Farm No 2	9/12	11/12	7/9
Farm No 3	3/4	4/4	4/5
Sensitivity	100% by farm (3/3), 86% by individual (86/100)		

Table 2. The Comparison study of specimens from healthy chicken and duck species.

Specimen	RapiGEN AIV Ag test	RT-PCR
Trachial	0/81	0/81
Cloacal	0/81	0/81
Ground feces	2/81	0/81
Specificity	AIV: 99.1% (2/243)	

Procedures

