

Introduction

Avian influenza virus (AIV) is classified into low and high pathogenic strains on the base of their pathogenicity. There are 15 haemagglutinins and 9 neuraminidases types of avian influenza A virus, giving rise to hundreds of variations on the 'HxNy' combination. Highly pathogenic avian influenza virus subtype H5N1 strains spread very rapidly through poultry flocks, cause disease affecting multiple internal organs, have a mortality that can approach 100%, often within 48 hours and affect human life seriously.

RapiGEN AIV H5 Ag test kit is a solid phase chromatographic immunoassay with highly specific monoclonal antibody against the haemagglutinin of AIV subtypes H5 strains for the detection of antigen in avian cloaca, trachea and ground feces. This kit has been found to identify AIV H5 strains with a high degree of accuracy.

Specifications

- Principle: immunochromatographic assay Gold conjugate; monoclonal anti- H5 protein of AIV
- Test line detector; monoclonal anti-H5 protein of AIV
- Detection; Avian influenza type A virus subtype H5
- Specimen: avian cloaca, trachea and ground feces
- Sensitivity: 100% by farm (n=3)
- Specificity: 99.5% (2/243) to RT-PCR
- 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 10 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 subtype H5 in the field or laboratory without additional equipment and technical skill
- High sensitivity even in duck farm
- Detection of avian influenza type A viruses subtype H5
- Saving labor and time
- High specificity to other avian virus and bacteria.

Table 1. The comparison study of specimens from duck farm confirmed infection by avian influenza H5 virus with RT-PCR method

Farm	RapiGEN AIV H5 Ag test		
	Trachea	Cloaca	Ground Feces
Farm No 1	3/4	3/4	-
Farm No 2	3/4	10/12	2/4
Farm No 3	10/12	11/12	7/9
Specificity	AIV H5; 100% by farm (3/3), 80.2% by individual (49/61)		

Table 2. Specificity of feces from healthy avian species.

Specimen	RapiGEN AIV H5 Ag test	RT-PCR
Trachial	0/81	0/81
Cloacal	0/81	0/81
Ground feces	2/81	0/81
Specificity	99.5% (2/243)	

Procedures

