

MONITOR AVIAN INFLUENZA WITH THE MOST COMPLETE RANGE OF DIAGNOSTIC TESTS

IDvet provides solutions which meet your needs!



Disease diagnosis with competitive ELISAs

- ⇒ Screening, Serotyping, Multi-species applications

Vaccination monitoring with indirect quantitative ELISAs

- ⇒ 100% correlation with HI test, monitoring of conventional and recombinant vaccines, DIVA strategies



Direct detection (screening or subtyping) with the ID Gene™ RT-qPCR kits

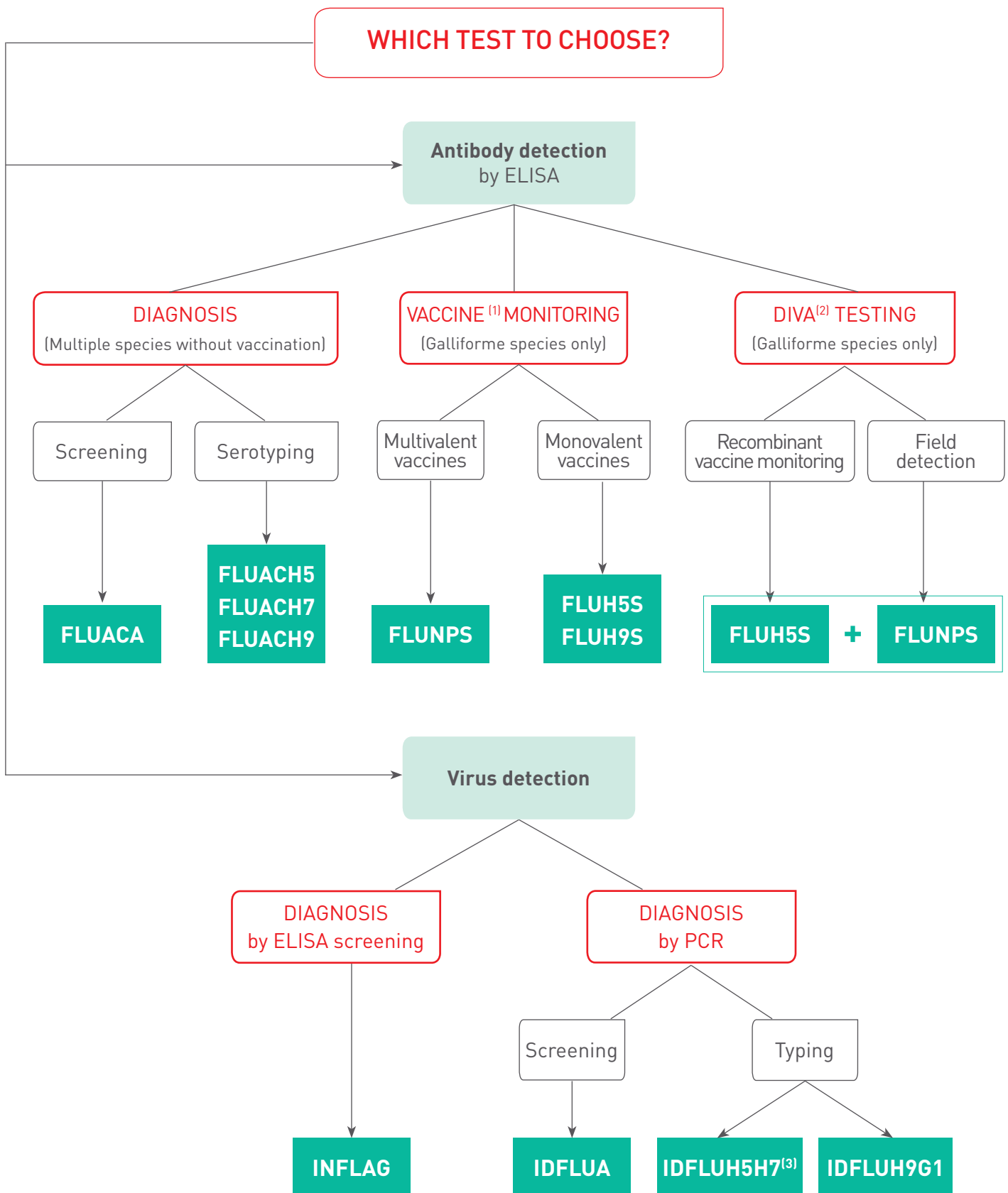
- ⇒ Endogenous control to validate sample presence
- ⇒ Positive controls to evaluate extraction and amplification



WITH YOU AT EVERY STEP

ID.vet

THE IDVET INFLUENZA DIAGNOSTIC RANGE



(1) All Influenza vaccines (killed + recombinant)

(2) Differentiation of Infected and Vaccinated Animals (recombinant vaccines only)
See table on next page on how to implement the DIVA strategy.

(3) Available in France only

THE IDVET INFLUENZA DIAGNOSTIC RANGE

DIVA strategy

(rHVT-H5 vaccines: Vectormune® AI)

Flock status	Expected results with FLUH5S	Expected results with FLUNPS
Unvaccinated, uninfected	NEG	NEG
Vaccinated (rHVT-H5), uninfected	POS	NEG
Vaccinated (rHVT-H5), infected	POS	POS

Specifications

PRODUCT CODE	PRODUCT NAME	METHOD	FORMAT	REACTIONS
FLUACA-2P	ID Screen® Influenza A Antibody Competition Multi-species	Competitive ELISA	2 plates	192
FLUACA-5P			5 plates	480
FLUACA-10P			10 plates	960
FLUACH5-2P	ID Screen® Influenza H5 Antibody Competition	Competitive ELISA	2 plates	192
FLUACH5-5P			5 plates	480
FLUACH7-2P	ID Screen® Influenza H7 Antibody Competition	Competitive ELISA	2 plates	192
FLUACH7-5P			5 plates	480
FLUACH9-2P	ID Screen® Influenza H9 Antibody Competition	Competitive ELISA	2 plates	192
FLUACH9-5P			5 plates	480
FLUNPS-5P	ID Screen® Influenza A Nucleoprotein Indirect	Indirect ELISA	5 plates	480
FLUNPS-10P			10 plates	960
FLUH5S-5P	ID Screen® Influenza H5 Indirect	Indirect ELISA	5 plates	480
FLUH5S-10P			10 plates	960
FLUH9S-5P	ID Screen® Influenza H9 Indirect	Indirect ELISA	5 plates	480
FLUH9S-10P			10 plates	960
INFLAG-2P	ID Screen® Influenza A Antigen Capture	Sandwich ELISA	2 plates	192
IDFLUA-100	ID Gene™ Influenza A Duplex	RT-qPCR - Duplex	-	100
IDFLUA-50			-	50
IDFLUH9G1-100	ID Gene™ Influenza H9 Lineage G1-like Duplex	RT-qPCR - Duplex	-	100
IDFLUH9G1-50			-	50
MRI-FLUC-RTU	Ready-to-use positive chicken serum pool (use with FLUACA, H5, H7, H9)		2 ml	-
MRI-FLUS-RTU	Ready-to-use positive chicken serum pool (use with FLUNPS, H9S)		2 ml	-
MRINEG-BIRD-RTU	Ready-to-use negative SPF chicken serum (use with ELISA and RSA)		5 ml	50

COMPETITIVE ELISAs

QUALITATIVE TESTING FOR DIAGNOSIS IN MULTIPLE SPECIES



A range of competitive ELISAs for the detection of antibodies against the Influenza A virus in avian serum, plasma or egg yolk samples from multiple species.

These kits may be used for disease diagnosis or serotyping.



ADVANTAGES

- + May be used in all domestic and wild birds
- + More robust and rapid than the HI test
- + Detects IgG and IgM antibodies, allowing for early and long-term antibody detection and high sensitivity

ID Screen® Influenza A Antibody Competition



- + Detects all Influenza A serotypes
- + Use to monitor disease in SPF animals

ID Screen® Influenza H5 Antibody Competition



- + Extensively validated by European reference laboratories
- + Detects new H5 clades (ex: 2.3.4.4)

ID Screen® Influenza H7 Antibody Competition



- + The only tests of their kind on the market

ID Screen® Influenza H9 Antibody Competition

TO CONTROL THE QUALITY OF YOUR RESULTS

IDvet provides reference sera to be used as internal reference material for quality control:

- Positive material for use with Influenza competitive ELISAs: product code **MRI-FLUC-RTU**
- Negative material for use with all Influenza ELISAs: product code **MRINEG-BIRD-RTU**

INDIRECT ELISAs

QUANTITATIVE TESTING FOR VACCINE MONITORING IN GALLIFORME SPECIES



A range of indirect ELISAs for the detection of antibodies against the Influenza A virus in chicken or turkey serum, plasma or egg yolk samples.

These tests may be used:

- for vaccine monitoring thanks to results expressed as titres.
- as part of a DIVA strategy when testing animals vaccinated with recombinant vaccines alone.



ADVANTAGES

- + Use for vaccination monitoring
- + 100% correlation with HI test
- + May be used in all galliforme species (chicken, turkey, quail, pheasant...)

ID Screen® Influenza A Nucleoprotein Indirect



- + High sensitivity, early detection of antibodies as of 7 days post-infection
- + Use as a DIVA test to detect natural infection in animals vaccinated with recombinant vaccines alone

ID Screen® Influenza H5 Indirect



- + Use to monitor recombinant or conventional H5 vaccines

ID Screen® Influenza H9 Indirect



- + Use to monitor H9 vaccines
- + Detects all H9 subtypes belonging to the G1 lineage

TO CONTROL THE QUALITY OF YOUR RESULTS

IDvet provides reference sera to be used as internal reference material for quality control:

- Positive material for use with Influenza indirect ELISAs: product code **MRI-FLUS-RTU**
- Negative material for use with all Influenza ELISAs: product code **MRINEG-BIRD-RTU**

DUPLEX RT-qPCR TESTS

HIGHLY SENSITIVE RT-qPCR KITS FOR DIRECT DETECTION (SCREENING OR SUBTYPING)



The **ID Gene™ Influenza qPCR Duplex** kits are qualitative duplex tests which simultaneously amplify target RNA and an endogenous internal control.

The kits may be used to test avian tracheal, oropharyngeal or cloacal swabs, organs and FTA® cards (individual samples or pools of up to 5).



ADVANTAGES

- + High kit sensitivity
- + Compatible with most extraction systems and all thermocyclers
- + Include an endogenous internal control to validate sample presence



Rapid amplification protocol



Positive controls to validate the efficiency of the extraction and amplification steps



The same extraction and amplification protocol shared by all ID Gene™ qPCRs



Ready-to-use reagents

ID Gene™ Influenza A Duplex



- + Detects all Influenza A serotypes
- + Validated by the French National Reference Laboratory (ANSES)

ID Gene™ Influenza H9 Lineage G1-like Duplex



- + Detects all H9 strains belonging to the G1 lineage

EXTERNAL REFERENCES

- Terregino, C. **Evaluation of sensitivity and specificity of a commercial competitive avian influenza type A antibody ELISA kit**, the OIE-FAO and National Reference Laboratory for Newcastle Disease and Avian Influenza, IZS delle Venezie, Legnaro (Padova), Italy
- Dundon, W.G., Terregino, C., Tuttoilmondo V., Pizzuto, M., Busani, L., Mancin, M., Cattoli, G., Capau I. **Preliminary validation of a commercial Avian Influenza N1 antibody competitive ELISA kit that can be used as part of a DIVA strategy**. Epizone 2007, Poland
- Molia, S. et al. **Avian influenza in backyard poultry of the Mopti region, Mali**. Trop Anim Health Prod. 2009
- Bertran, K et al. **Pathogenesis and transmissibility of highly (H7N1) and low (H7N9) pathogenic avian influenza virus infection in red-legged partridge (Alectoris rufa)**. Veterinary Research 2011, 42:24.
- Damiani, A. M., Kalthoff, D., Beer, M., Müller, E., Osterrieder, N. **Serological Survey in Dogs and Cats for Influenza A(H1N1) pdm09 in Germany**. <https://doi.org/10.1111/j.1863-2378.2012.01541.x>. August 2012
- Claes, G., Vangeluwe, D., Van der Stede, Y., Van den Berg, T., Lambrecht, B., Marché, S. **Evaluation of Four Enzyme-Linked Immunosorbent Assays for the Serologic Survey of Avian Influenza in Wild Bird Species**. Avian Diseases: December 2012, Vol. 56, No. 4s1, pp. 949-954.
- Anna Piłkuła, Krzysztof Śmietanka, Anna Lisowska and Zenon Minta. **Active surveillance in poultry in Poland for avian influenza subtypes H5 and H7**. Department of Poultry Diseases, National Veterinary Research Institute, Puławy, Poland. Vol. 61, No 3/2014 459–463 on-line at: www.actabp.pl. March 2014
- Lebarbenchon, C. et al. **Influenza A virus on Oceanic Islands: host and viral diversity in seabirds in the Western Indian Ocean**. PLOS Pathogens. DOI: 10.1371/journal.PPAT.1004925. May 21, 2015
- Sylvie Marché Thierry van den Berg Bénédicte Lambrecht. **Evaluation of the kinetics of anti NP and anti HA antibody after infection of Pekin ducks with low pathogenic avian influenza virus**. <https://doi.org/10.1002/vms3.18>. January 2016
- Gardin, Y. et al. **Investigation on the possible application of a serological DIVA monitoring strategy when a rHVT-H5 vaccine is used to control Avian Influenza**. Oral presentation given at the AVMA – AAAP convention, San Antonio, USA, August 2016. External study performed by CEVA Animal Health.
- Trine Hammer Jensen, Jannie Holmegaard Andersen, Charlotte Kristiane Hjulsager, Mariann Chriél, Mads Frost Bertelsen. **Evaluation of a commercial competitive enzyme-linked immunosorbent assay for detection of avian Influenza virus subtype H5 antibodies in zoo birds**. J. of Zoo and Wildlife Medicine, 48(3):882-885 (2017). <https://doi.org/10.1638/2016-0220.1>. September 2017
- Lebarbenchon, C., Brown, J.D., Page Luttrell, M. **Comparison of two commercial enzyme-linked immunosorbent assays for detection of Influenza A virus antibodies**. <https://doi.org/10.1177/1040638711416626>. August 2019.



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