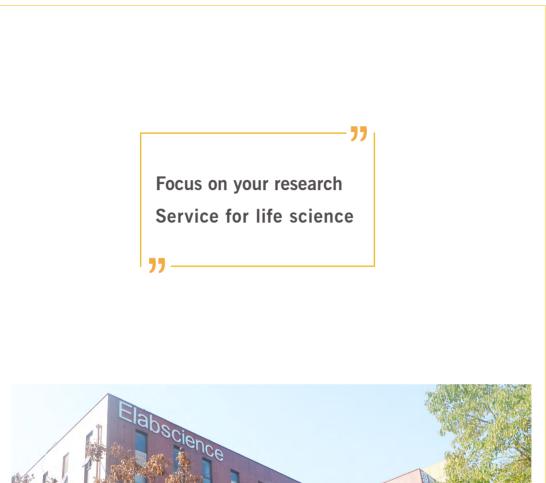




Animal Disease Handbook

By protecting animals, we preserve our future

www.elabscience .com





Contents

About Us 2
Nhy Choose Us 3
Detection Methods 5
Year Animal Disease 7
Scheme Application Examples 8
Products Specification 15



Elabscience has been committed to providing high-quality detecting products and services for the research of life science, including ELISA Kits, Biochemical Kits, Antibodies, Proteins, Cell Lines, Food Safety Kits, Animal Diseases Kits and other reagents.

With products certified by ISO9001, Elabscience has grown to be a professional and efficient supplier of research reagents and a supporter for technical services, and widely recognized in the market.



Why Choose Us



Animal disease incidents are problems faced by all countries in the world and are related to the health of human life. Elabscience uses its technological advantages accumulated in immunological testing to develop animal disease detecting products for you.

R&D Process



1. Antigen design



2. Antigen immunization



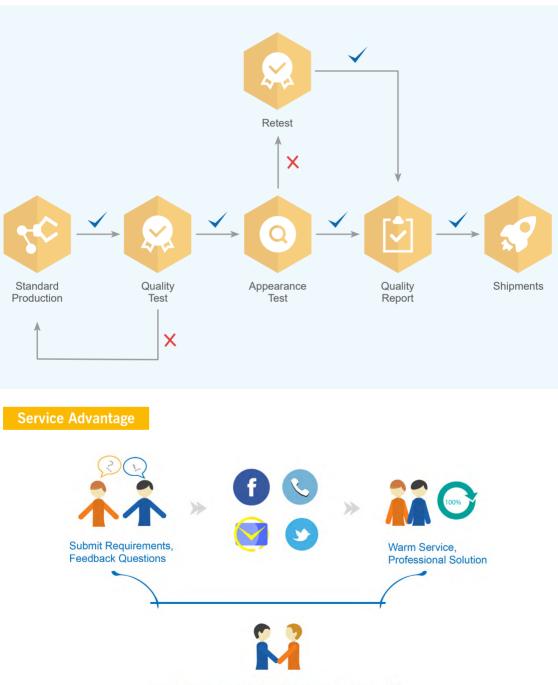
3. Antibody preparation



5. Finished product

Elabscience has a comprehensive R&D and production center covering an area of 1000 square meters. The whole production process follows the GMP management, and the whole process is closely monitored to ensure product quality.

QC process



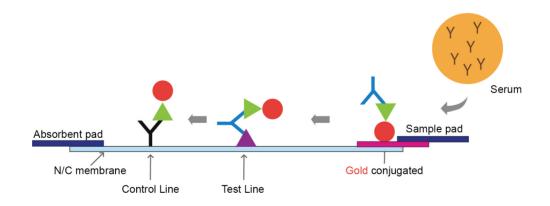
Quick Response in 24h, Efficient Solution in 48h

Detection Methods

Immune Colloidal Gold Technique



- \checkmark Fast: 10-20 minutes for a single sample.
- Efficient: Multiple targets can be detected simultaneously.
- Convenient: The result is visual, no need for professional training.
- Accurate: The false positive rate of test card is below 6%.





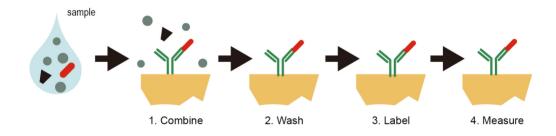
Application Situation:

This method can be used to qualitatively analyze and judge whether the target exists or not, and it is generally applicable to the early screening of positive samples.

Enzyme-Linked ImmunoSorbent Assay, ELISA



- \checkmark The CV value of standards is below 10%.
- High sensitivity and specificity.
- \bigcirc The test result is accurate and the instrument is standardized.
- \bigcirc The detection time of the same batch of samples is 1-2 hours.





Application Situation:

This method can be used to determine the target of qualitatively, and it is generally applicable to the early screening or later confirmation of target content.

Animal Disease



Z Diseases Introduction

Animal diseases include zoonosis, parasitosis and others. Threatening the health of animals, these diseases cause declines in productions. Control measures such as destruction only lead to serious economic losses to the industry. As the economic globalization deepens, these diseases spread rapidly across borders, making the situation worse for both human and animals and seriously affecting public health. Because there are numerous variants of pathogens, people can only resort to preventive measures as there is no effective way for eliminating them in the world.

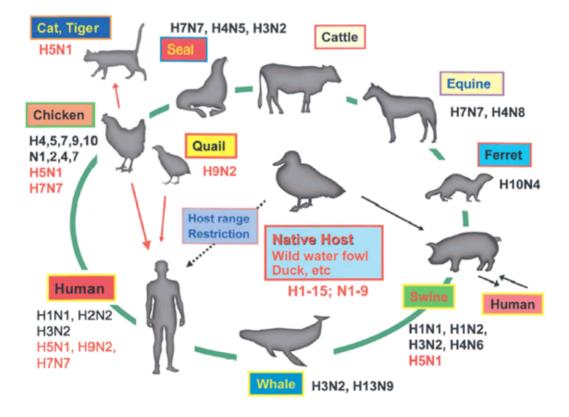
Application Examples

Avian Influenza

Avian influenza results from infection by viruses belonging to the species influenza A virus, genus influenzavirus A and family Orthomyxoviridae. Influenza A viruses are classified into subtypes based on two surface proteins, the hemagglutinin (HA) and neuraminidase (NA). At least 16 hemagglutinins (H1 to H16), and 9 neuraminidases (N1 to N9) have been found in viruses from birds. Influenza viruses in birds are classified as either low pathogenic (also called low pathogenicity) or highly pathogenic (high pathogenicity) avian influenza viruses. To date, the fully virulent HPAI viruses found in nature have always contained H5 or H7, although there are rare examples of other viruses that could technically be considered HPAI.

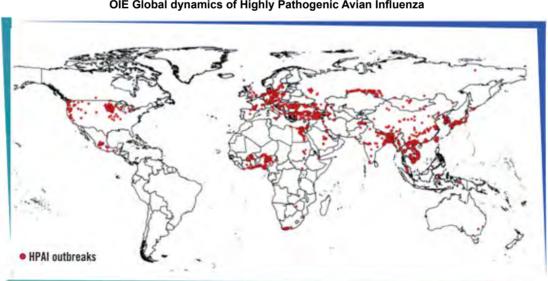


Avian influenza viruses are highly contagious, extremely variable viruses that are widespread in birds. Wild birds in aquatic habitats are thought to be their natural reservoir hosts, but domesticated poultry are readily infected. Highly pathogenic avian influenza (HPAI) viruses can develop from certain LPAI viruses, usually while they are circulating in poultry flocks. HPAI viruses can kill up to 90-100% of the flock, and cause epidemics that may spread rapidly, devastate the poultry industry and result in severe trade restrictions. Infection of poultry with LPAI viruses capable of evolving into HPAI viruses also affects international trade. Avian influenza viruses occasionally affect mammals, including humans, usually after close contact with infected poultry. While many human cases are limited to conjunctivitis or mild respiratory disease, some viruses tend to cause severe illness. In rare cases, avian influenza viruses can become adapted to circulate in a mammalian species, and these viruses have caused or contributed to at least three pandemics in humans.

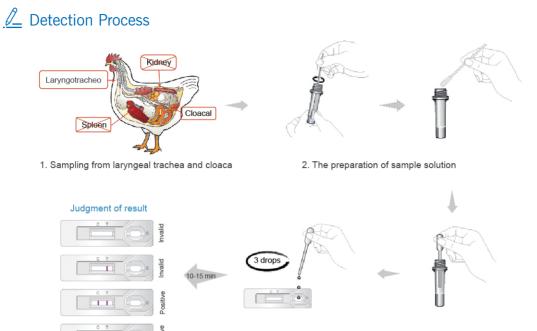


Diagnostic Tests

Avian influenza viruses can be detected in oropharyngeal, tracheal and/or cloacal swabs from live birds, with differing recovery rates from each site depending on the virus, species of bird and other factors. Samples from internal organs are also tested in dead birds. Diagnostic tests should be validated for the species of bird, and some tests that are useful in chickens and turkeys may be less reliable in other avian species. Avian influenza viruses can be isolated in embryonated eggs, and they can be subtyped with specific antisera in hemagglutination and neuraminidase inhibition tests. RT-PCR assays can detect influenza viruses directly in clinical samples. Viral antigens can be detected with ELISAs including rapid tests, but these tests are more reliable as flock tests than in individual birds. Serology can be valuable for surveillance and demonstrating freedom from infection, but it is not very useful in diagnosing HPAI infections in highly susceptible birds, as they usually die before developing antibodies. Agar gel immunodiffusion (AGID) tests and ELISAs to detect conserved influenza virus proteins can recognize all avian influenza subtypes, but hemagglutination inhibition (HI) tests are subtype specific and may miss some infections. Cross-reactivity between influenza viruses can be an issue. Tests that can distinguish infected from vaccinated birds (DIVA tests) should be used in surveillance when vaccination is part of a control program.



OIE Global dynamics of Highly Pathogenic Avian Influenza



4. Add sample to the sample well (S)

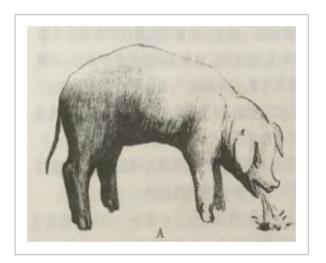
3. Take the sample supernatant

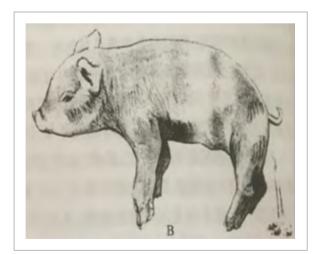
A Product Features

- AIV-specific monoclonal antibody was selected and AIV co-antigen was measured by sandwich method.
- Applying the principle of colloidal gold immunochromatographic test, the operation is simple, the detection is fast, and the result is visual.
- \bigcirc High sensitivity to detect all subtypes of avian influenza virus.
- Good specificity, no cross-reactivity with influenza B virus, Newcastle disease virus and other common poultry viruses.

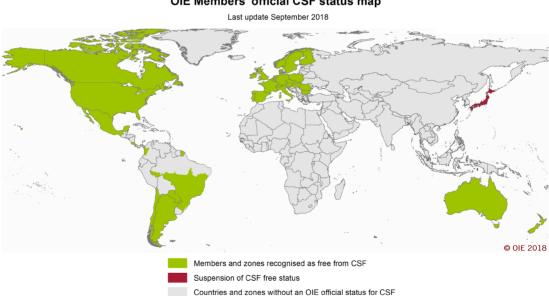
Classical Swine Fever

Classical swine fever (CSF), also known as hog cholera, is a contagious viral disease of domestic and wild swine. It is caused by a virus of the genus Pestivirus of the family Flaviviridae, which is closely related to the viruses that cause bovine viral diarrhoea in cattle and border disease in sheep. There is only one serotype of CSF virus (CSFV). CSF is a disease listed by the OIE World Organisation for Animal Health (OIE) Terrestrial Animal Health Code and must be reported to the OIE (OIE Terrestrial Animal Health Code).

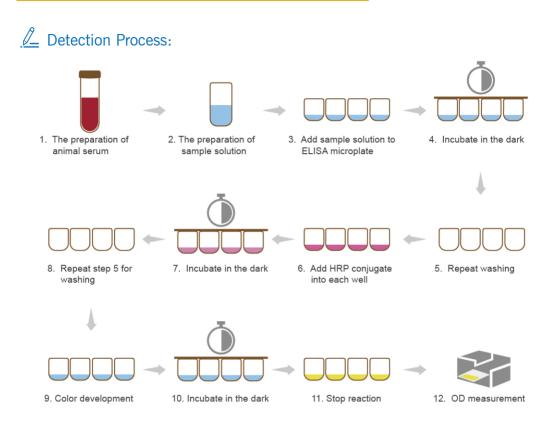




The most common method of transmission is through direct contact between healthy swine and those infected with CSF virus. The virus is shed in saliva, nasal secretions, urine, and feces. Contact with contaminated vehicles, pens, feed, or clothing may spread the disease. Animals that are chronic carriers of the disease (persistently infected) may show no clinical signs of illness but may shed the virus in their feces. Offspring of infected sows can become infected in the uterus, and can shed the virus for months.CSF virus can survive in pork and processed pork products for months when meat is refrigerated and for years when it is frozen. Pigs can become infected by eating CSF-infected pork meat or products. It has been proven that in parts of Europe, the wild boar population may play a role in the epidemiology of the disease. The disease has been spread through legal and illegal transport of animals, and by feeding swill containing infective tissues to pigs. The disease has acute and chronic forms, and can range from severe, with high mortality, to mild or even unapparent. In the acute form of the disease, in all age groups, there is fever, huddling of sick animals, loss of appetite, dullness, weakness, conjunctivitis, constipation followed by diarrhoea, and an unsteady gait. Several days after the onset of clinical signs, the ears, abdomen and inner thighs may show a purple discoloration. Animals with acute disease die within 1-2 weeks. Severe cases of the disease appear very similar to African swine fever. With low virulence strains, the only expression may be poor reproductive performance and the birth of piglets with neurologic defects such as congenital tremor.



OIE Members' official CSF status map



Product Features:

- Applying the principle of enzyme-linked immunoassay (ELISA) to detect CSFV antibody of porcine serum, plasma samples.
- \checkmark The CV value of standards is below 10%, high sensitivity and specificity, the result is accurate and the instrument is standardized.
- It can be used to detect swine fever virus antibody in pig serum and evaluate the immune effect of swine fever virus vaccine.

Products Specification

Disease	Cat.No.	Product Name	Sample Species	Product Type	Size
Avian Influenza	E-AD-C001	Avian Influenza H5 Virus Antigen Rapid Test Kit	Poultry	Colloidal gold	40T
	E-AD-C002	Avian Influenza Virus Antigen Rapid Test Kit	Poultry	Colloidal gold	40T
	E-AD-C004	Avian Influenza H7 Virus Antigen Rapid Test Kit	Poultry	Colloidal gold	40T
	E-AD-C017	Avian Influenza Virus Antibodies Rapid Test Kit	Poultry	Colloidal gold	50T
	E-AD-C019	Avian Influenza H9 Virus Antigen Rapid Test Kit	Poultry	Colloidal gold	40T
	E-AD-C021	Avian Influenza H5 Virus Antibodies Rapid Test Kit	Poultry	Colloidal gold	50T
	E-AD-C042	Avian Influenza H7 Virus Antibodies Rapid Test Kit	Poultry	Colloidal gold	50T
	E-AD-C043	Avian Influenza H9 Virus Antibodies Rapid Test Kit	Poultry	Colloidal gold	50T
	E-AD-E034	Avian Influenza Virus Antibodies ELISA Kit	Poultry	ELISA	96T
	E-AD-E045	Avian Influenza H5 Virus Antibodies ELISA Kit	Poultry	ELISA	96T
Foot and Mouth Disease	E-AD-C033	Foot and Mouth Disease Virus Type O Antibodies Rapid Test Kit	Porcine, Cattle, Goat	Colloidal gold	50T
	E-AD-E005	Porcine Foot and Mouth Disease Virus Type O Antibodies ELISA Kit	Porcine	ELISA	96T
	E-AD-E017	Foot and Mouth Disease Virus Type O Antibodies ELISA Kit	Porcine, Cattle, Goat	ELISA	96T
	E-AD-E019	Foot and Mouth Disease Virus Type A Antibodies ELISA Kit	Cattle, Goat	ELISA	96T
	E-AD-E020	Foot and Mouth Disease Virus Type Asia ${\rm \ I}$ Antibodies ELISA Kit	Porcine, Cattle, Goat	ELISA	96T
	E-AD-E050	Cattle and Goat Foot and Mouth Disease Virus Type O Antibodies ELISA Kit	Cattle, Goat	ELISA	96T
	E-AD-C029	Brucellosis Antibodies Rapid Test Kit	Cattle, Goat, Porcine	Colloidal gold	40T
Brucellosis	E-AD-C041	Brucellosis Antigen Rapid Test Kit	Cattle, Goat	Colloidal gold	50T
	E-AD-E026	Goat Brucellosis Antibodies ELISA Kit	Goat	ELISA	96T
Parvovirus	E-AD-C023	Canine Parvovirus Antigen Rapid Test Kit	Canine	Colloidal gold	40T
	E-AD-C035	Porcine Parvovirus Antibodies Rapid Test Kit	Porcine	Colloidal gold	50T
	E-AD-E010	Porcine Parvovirus Antibodies ELISA Kit	Porcine	ELISA	96T
	E-AD-C014	Pseudorabies Virus Antibodies Rapid Test Kit	Porcine	Colloidal gold	50T
Pseudorabies	E-AD-E008	Porcine Pseudorabies Disease Virus Antibodies ELISA Kit	Porcine	ELISA	96T
	E-AD-E021	Porcine Pseudorabies Disease Virus gE Antibodies ELISA Kit	Porcine	ELISA	96T
	E-AD-E040	Porcine Pseudorabies Disease Virus gB Antibodies ELISA Kit	Porcine	ELISA	96T
Newcastle Disease	E-AD-C003	Newcastle Disease Virus Antigen Rapid Test Kit	Poultry	Colloidal gold	40T
	E-AD-C018	Newcastle Disease Virus Antibodies Rapid Test Kit	Poultry	Colloidal gold	50T
	E-AD-E013	Newcastle Disease Virus Antibodies ELISA Kit	Poultry	ELISA	96T
Peste des Petits Ruminants	E-AD-C028	Goat Peste des Petits Ruminants Virus Antibodies Rapid Test Kit	Goat,Sheep	Colloidal gold	50T
	E-AD-E036	Goat Peste des Petits Ruminants Virus Antibodies ELISA Kit	Goat	ELISA	96T
Reproductive and Respiratory Syndrome	E-AD-C009	Porcine Reproductive and Respiratory Syndrome Virus Antibodies Rapid Test Kit	Porcine	Colloidal gold	50T
	E-AD-E006	Porcine Reproductive and Respiratory Syndrome Virus Antibodies	Porcine	ELISA	96T

Disease	Cat.No.	Product Name	Sample Species	Product Type	Size
Swine Fever	E-AD-C008	Classical Swine Fever Virus Antibodies Rapid Test Kit	Porcine	Colloidal gold	50T
	E-AD-E009	Classical Swine Fever Virus Antibodies ELISA Kit	Porcine	ELISA	96T
Circovirus	E-AD-C015	Porcine Circovirus 2 Antibodies Rapid Test Kit	Porcine	Colloidal gold	40T
	E-AD-E003	Porcine Circovirus Type 2 Antibodies ELISA Kit	Porcine	ELISA	96T
Epidemic Diarrhea	E-AD-E007	Porcine Epidemic Diarrhea Virus Antibodies ELISA Kit	Porcine	ELISA	96T
Distemper	E-AD-C025	Canine Distemper Virus Antigen Rapid Test Kit	Canine	Colloidal gold	40T
Tuberculosis	E-AD-C007	Cattle and Goat Tuberculosis Antibodies Rapid Test Kit	Cattle, Goat, Sheep	Colloidal gold	40T
Hydatid	E-AD-C032	Cattle and Goat Hydatid Antibodies Rapid Test Kit	Cattle, Goat, Sheep	Colloidal gold	40T
Encephalitis	E-AD-E002	Porcine Japanese Encephalitis Virus Antibodies ELISA Kit	Porcine	ELISA	96T
Toxoplasma	E-AD-C044	Canine Toxoplasma Antibodies Rapid Test Kit	Canine	Colloidal gold	50T
	E-AD-E004	Porcine Toxoplasma Antibodies ELISA Kit	Porcine	ELISA	96T
Infectious Bronchitis	E-AD-E012	Chicken Infectious Bronchitis Virus Antibodies ELISA Kit	Poultry	ELISA	96T
Echinococcus	E-AD-E068	Canine Echinococcus Antigen ELISA kit	Canine	ELISA	96T
Transmissible Gastroenteritis	E-AD-E041	Porcine Transmissible Gastroenteritis Virus Antibodies ELISA Kit	Porcine	ELISA	96T
Rabies	E-AD-C024	Rabies Virus Antigen Rapid Test Kit	Canine,Cat	Colloidal gold	40T
Coronaviridae	E-AD-C045	Canine Coronaviridae Antigen Rapid Test Kit	Canine	Colloidal gold	40T





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