

# Test Kits for Animal Disease Research

# About Elabscience

Elabscience specializes in immunodiagnostic technology for life science community. We have complete platform for R&D and manufacture. At the same time, we have in house QC for every product, endeavoring to keep your experiment results more consistent and precise. Through unremitting effort and development, our customers have spread in more than 100 countries all over the world. With the problem about occurrence and prevalence of animal diseases become more complex, animal disease laboratory diagnosis is becoming more important. Accurate test results play a decisive role on the producers to take appropriate control measures. The animal disease antibodies test kits of Elabscience possess the characteristics of high sensitivity and specificity, quick and easy operation, good reproducibility, economy, accuracy and safety which can greatly promote the research process of animal diseases for you.

# Animal Disease



## Definition and classification of animal disease

**Animal disease** includes infectious or parasitic disease. According to the hazard level of disease, animal epidemic has been divided into three kinds.

**The first kind of disease:** It is seriously harmful to humans and animals, urgent and strict precautionary, control and dispose measures must be taken.

**For example:** Swine Fever or Foot-and-Mouth Disease

**The second kind of disease:** It results in significant economic losses, severely control and dispose measures must be taken.

**For example:** Parvovirus or Japanese Encephalitis virus

**The third kind of disease:** It always appears, may cause serious economic losses, needs to be controlled and purification.

**For example:** Transmissible Gastroenteritis



## Product List

| Cat. No.  | Product name  | Reactivity            | Product type   |
|-----------|---|-----------------------|----------------|
| E-AD-C001 | Avian Influenza H5 Virus Antigen Rapid Test Kit                               | Poultry               | Colloidal gold |
| E-AD-C002 | Avian Influenza Virus Antigen Rapid Test Kit                                  | Poultry               | Colloidal gold |
| E-AD-C003 | Newcastle Disease Virus Antigen Rapid Test Kit                                | Poultry               | Colloidal gold |
| E-AD-C004 | Avian Influenza H7 Virus Antigen Rapid Test Kit                               | Poultry               | Colloidal gold |
| E-AD-C005 | Peste des Petits Ruminants Virus Antibodies Rapid Test Kit                    | Small ruminant animal | Colloidal gold |
| E-AD-C007 | Cattle and Goat Tuberculosis Antibodies Rapid Test Kit                        | Cattle, Goat          | Colloidal gold |
| E-AD-C008 | Classical Swine Fever Virus Antibodies Rapid Test Kit                         | Swine                 | Colloidal gold |
| E-AD-C009 | Porcine Reproductive and Respiratory Syndrome Virus Antibodies Rapid Test Kit | Swine                 | Colloidal gold |
| E-AD-C010 | Porcine Foot and Mouth Disease Virus Type O Antibodies Rapid Test Kit         | Swine                 | Colloidal gold |
| E-AD-C011 | Cattle and Goat Foot and Mouth Disease Virus Type O Antibodies Rapid Test Kit | Cattle, Goat          | Colloidal gold |
| E-AD-C012 | Goat Foot and Mouth Disease Virus Type O Antibodies Rapid Test Kit            | Goat                  | Colloidal gold |
| E-AD-C013 | Cattle Foot and Mouth Disease Virus Type O Antibodies Rapid Test Kit          | Cattle                | Colloidal gold |
| E-AD-C014 | Pseudorabies Virus Antibodies Rapid Test Kit                                  | Swine                 | Colloidal gold |
| E-AD-C015 | Porcine Circovirus 2 Antibodies Rapid Test Kit                                | Swine                 | Colloidal gold |
| E-AD-C017 | Avian Influenza Virus Antibodies Rapid Test Kit                               | Poultry               | Colloidal gold |
| E-AD-C018 | Newcastle Disease Virus Antibodies Rapid Test Kit                             | Poultry               | Colloidal gold |
| E-AD-C019 | Avian Influenza H9 Virus Antibodies Rapid Test Kit                            | Poultry               | Colloidal gold |

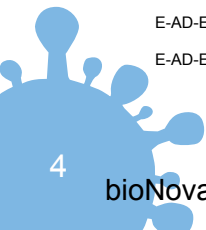


| Cat. No.  | Product name   | Reactivity          | Product type   |
|-----------|--|---------------------|----------------|
| E-AD-C021 | Avian Influenza H5 Virus Antibodies Rapid Test Kit                       | Poultry             | Colloidal gold |
| E-AD-C023 | Canine Parvovirus Antibodies Rapid Test Kit                              | Canine              | Colloidal gold |
| E-AD-C024 | Rabies Virus Antibodies Rapid Test Kit                                   | Canine, Cat         | Colloidal gold |
| E-AD-C025 | Canine Distemper Virus Antibodies Rapid Test Kit                         | Canine              | Colloidal gold |
| E-AD-C028 | Peste des Petits Ruminants Virus Antibodies Rapid Test Kit               | Goat, Sheep         | Colloidal gold |
| E-AD-C029 | Brucellosis Antibodies Rapid Test Kit                                    | Cattle, Goat        | Colloidal gold |
| E-AD-C030 | Goat Brucellosis Antibodies Rapid Test Kit                               | Goat                | Colloidal gold |
| E-AD-C031 | Cattle Brucellosis Antibodies Rapid Test Kit                             | Cattle              | Colloidal gold |
| E-AD-C032 | Cattle and Goat Hydatid Antibodies Rapid Test Kit                        | Cattle, Goat        | Colloidal gold |
| E-AD-C033 | Foot and Mouth Disease Virus Type O Antibodies Rapid Test Kit            | Swine, Cattle, Goat | Colloidal gold |
| E-AD-C035 | Porcine Parvovirus Antibodies Rapid Test Kit                             | Swine               | Colloidal gold |
| E-AD-C036 | Avian Influenza H5N1 Virus Antibodies Rapid Test Kit                     | Poultry             | Colloidal gold |
| E-AD-E002 | Porcine Japanese Encephalitis Virus Antibodies ELISA Kit                 | Swine               | ELISA          |
| E-AD-E003 | Porcine Circovirus Type 2 Antibodies ELISA Kit                           | Swine               | ELISA          |
| E-AD-E004 | Porcine Toxoplasma Antibodies ELISA Kit                                  | Swine               | ELISA          |
| E-AD-E005 | Porcine Foot and Mouth Disease Virus Type O Antibodies ELISA Kit         | Swine               | ELISA          |
| E-AD-E006 | Porcine Reproductive and Respiratory Syndrome Virus Antibodies ELISA Kit | Swine               | ELISA          |
| E-AD-E007 | Porcine Epidemic Diarrhea Virus Antibodies ELISA Kit                     | Swine               | ELISA          |
| E-AD-E008 | Pseudorabies Disease Virus PRV-gD Antibodies ELISA Kit                   | Swine               | ELISA          |





| Cat. No.  | Product name  | Reactivity          | Product type |
|-----------|---|---------------------|--------------|
| E-AD-E009 | Classical Swine Fever Virus Antibodies ELISA Kit                      | Swine               | ELISA        |
| E-AD-E010 | Porcine Parvovirus Antibodies ELISA Kit                               | Swine               | ELISA        |
| E-AD-E012 | Chicken Infectious Bronchitis Virus Antibodies ELISA Kit              | Poultry             | ELISA        |
| E-AD-E013 | Newcastle Disease Virus Antibodies ELISA Kit                          | Poultry             | ELISA        |
| E-AD-E015 | Avian Influenza H5N1 Virus Antibodies ELISA Kit                       | Poultry             | ELISA        |
| E-AD-E017 | Foot and Mouth Disease Virus Type O Antibodies ELISA Kit              | Swine, Cattle, Goat | ELISA        |
| E-AD-E018 | Cattle Foot and Mouth Disease Virus Type O Antibodies ELISA Kit       | Cattle              | ELISA        |
| E-AD-E019 | Foot and Mouth Disease Virus Type A Antibodies ELISA Kit              | Swine, Cattle, Goat | ELISA        |
| E-AD-E020 | Foot and Mouth Disease Virus Type Asia I Antibodies ELISA Kit         | Swine, Cattle, Goat | ELISA        |
| E-AD-E021 | Porcine Pseudorabies Disease Virus PRV-gE Antibodies ELISA Kit        | Swine               | ELISA        |
| E-AD-E022 | Goat Foot and Mouth Disease Virus Type Asia I Antibodies ELISA Kit    | Goat                | ELISA        |
| E-AD-E023 | Goat Foot and Mouth Disease Virus Type Asia II Antibodies ELISA Kit   | Goat                | ELISA        |
| E-AD-E024 | Goat Foot and Mouth Disease Virus NSP Antibodies ELISA Kit            | Goat                | ELISA        |
| E-AD-E026 | Goat Brucellosis Antibodies ELISA Kit                                 | Goat                | ELISA        |
| E-AD-E027 | Goat Foot and Mouth Disease Virus Type A Antibodies ELISA Kit         | Goat                | ELISA        |
| E-AD-E028 | Cattle Foot and Mouth Disease Virus Type Asia I Antibodies ELISA Kit  | Cattle              | ELISA        |
| E-AD-E030 | Cattle Foot and Mouth Disease Virus Type Asia II Antibodies ELISA Kit | Cattle              | ELISA        |
| E-AD-E032 | Cattle Foot and Mouth Disease Virus NSP Antibodies ELISA Kit          | Cattle              | ELISA        |
| E-AD-E034 | Avian Influenza Virus Antibodies ELISA Kit                            | Poultry             | ELISA        |





| Cat. No.  | Product name   | Reactivity   | Product type |
|-----------|--|--------------|--------------|
| E-AD-E035 | Cattle Brucellosis Antibodies ELISA Kit                                  | Cattle       | ELISA        |
| E-AD-E036 | Goat Peste des Petits Ruminants Virus Antibodies ELISA Kit               | Goat         | ELISA        |
| E-AD-E037 | Cattle Foot and Mouth Disease Virus Type O Antibodies ELISA Kit          | Cattle       | ELISA        |
| E-AD-E038 | Cattle Foot and Mouth Disease Virus Type Asia I Antibodies ELISA Kit     | Cattle       | ELISA        |
| E-AD-E039 | Cattle Foot and Mouth Disease Virus Type A Antibodies ELISA Kit          | Cattle       | ELISA        |
| E-AD-E040 | Porcine Pseudorabies Disease Virus PRV-gB Antibodies ELISA Kit           | Swine        | ELISA        |
| E-AD-E041 | Porcine Transmissible Gastroenteritis Virus Antibodies ELISA Kit         | Swine        | ELISA        |
| E-AD-E043 | Porcine Foot and Mouth Disease Virus NSP Antibodies ELISA Kit            | Swine        | ELISA        |
| E-AD-E044 | Anatine Avian Influenza Virus Antibodies ELISA Kit                       | Poultry      | ELISA        |
| E-AD-E045 | Avian Influenza H5 Virus Antibodies ELISA Kit                            | Poultry      | ELISA        |
| E-AD-E046 | Porcine Foot and Mouth Disease Virus VP1 Antibodies ELISA Kit            | Swine        | ELISA        |
| E-AD-E050 | Cattle and Goat Foot and Mouth Disease Virus Type O Antibodies ELISA Kit | Cattle, Goat | ELISA        |
| E-AD-E052 | Porcine Pseudorabies Disease Virus PRV-gpI Antibodies ELISA Kit          | Swine        | ELISA        |
| E-AD-E055 | Swine Influenza Virus Antibodies ELISA Kit                               | Swine        | ELISA        |
| E-AD-E057 | Goat Foot and Mouth Disease Virus Type O Antibodies ELISA Kit            | Goat         | ELISA        |
| E-AD-E058 | Goat Foot and Mouth Disease Virus Type O Antibodies ELISA Kit            | Goat         | ELISA        |





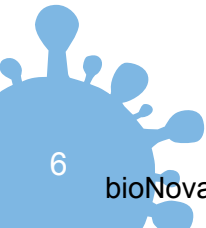
# Detection Method

## Definition of serological reaction

Antigen can combine specifically with certain antibody. Under the influence of reaction condition, it might show with a certain reaction phenomenon, such as gathering or precipitating, so we can use known antibody or antigen to detect unknown antigen or antibody. Antibody used in experiment always exists in serum, so it is also called serological reaction.

## Comparison with serological detection method

| Test method                      | Sensibility | Specificity | Result determined         | Complexity of operation |
|----------------------------------|-------------|-------------|---------------------------|-------------------------|
| Agglutination test               | < 1 µg/L    | Low         | Hard to judge             | Complex                 |
| Hemagglutination inhibition test | < 0.1 µg/L  | Low         | Hard to judge             | Complex                 |
| ELISA                            | < 1 ng/L    | High        | Read by microplate reader | Easy                    |
| Colloidal gold labeling          | < 50 ng/L   | High        | Colourimetric card        | Easy                    |



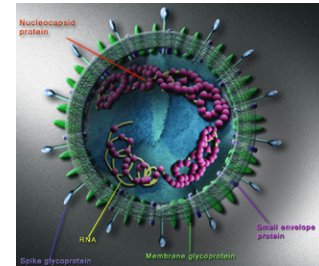


## Definition of antigen and antibody

### Antigen:

Ag is short of antigen, a substance can trigger the immune reaction. Invaders can be recognized by immune globulin secreted by B cell, disposed by antigen presenting cell and combined with major histocompatibility complex (MHC), then activate T cell to induce a series of immunoreaction.

- **Antigen detection:** Detection of pathogen content in animal body.
- **The main role:** To diagnose whether the animal carrying a virus.



### Antibody:

Ab is short of antibody, a large protein in Y shape which is secreted by plasma cell also called effective B cell to identify and neutralize foreign matters from outside of body such as bacteria and virus. Antibody is only found in body fluid like blood or B cell membrane of vertebrate, it can recognize a certain kind of invader called antigen.

- **Antibody detection:** Detection of antibody level in animal body.
- **The main role:** To assess the vaccine effect.



## Advantages of colloidal gold test kit

- Quick detection: 10~20 min for each sample.
- High sensitivity, strong specificity and easy operation.
- Low cost and no need for expensive instruments.
- Results are clear and could be observed by naked eyes.



## Advantages of ELISA test kit

- Very sensitive, can detect sample at the level of nanogram even pictogram.
- Coefficient of variation is less than 15%, quality guarantee period is more than 1 year.
- Good repeatability and high stability.
- Short time spent on detection, you can receive your result after only about 1 hour.
- Results are read by apparatus with great objectivity.



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