（FOR RESEARCH USE ONLY. DO NOT USE IT IN CLINICAL DIAGNOSIS !）

Human Anti-Sperm (AS) IgG ELISA Kit

Catalog No: GEH092

96T

This manual must be read attentively and completely before using this product.

If you have any problem, please contact our Technical Service Center for help.

Tel: 400-967-3365
Email: techsupport@uni-science.com
Website: www.elabscience.cn

Please kindly provide us the lot number (on the outside of the box) of the kit for more efficient service.

Test principle

This ELISA kit uses Indirect-ELISA as the method to detect the Sperm (SPE) antibody (IgG) in human serum. The ELISA Microtiter plate provided in this kit has been pre-coated with purified SPE membrane antigen. Samples are added to the ELISA Microtiter plate wells and the SPE antibody in which will combine with the pre-coated antigen to form antigen-antibody compound. Free components are washed away. The HRP conjugate is added to each well and react with the compound to form "SPE antigen- SPE antibody-HRP conjugate" compound. The TMB substrate is added to initiate the color developing reaction. The presence of SPE antibody (IgG) can be determined according to the OD value after colorimetric assay with the Microplate reader.

Kit components

Item	Specifications
ELISA Microtiter plate	96 wells
Positive Control	1 mL
Negative Control	1 mL
HRP Conjugate	12 mL
Sample Diluent	12 mL
20×Concentrated Wash Buffer	50 mL
Substrate Reagent A	6 mL
Substrate Reagent B	6 mL
Stop Solution	6 mL
Plate Sealer	3 pieces
Sealed Bag	1 piece
Manual	1 copy

Other materials required but not supplied

Microplate Reader with 450 nm wavelength filter or dual-wavelength (450/630 nm)

High-precision transferpettor, EP tubes and disposable pipette tips

37℃ Incubator or water bath

Deionized water

Absorbent paper

Loading slot for Wash Buffer

Notes

1. Please read the manual carefully before use, changes of operation may result in unreliable results.
2. Wear gloves and work clothes during experiment, and the disinfection and isolation system should be strictly executed. All the waste should be handled as contaminant.
3. The stop solution is corrosive, it should be avoided to contact with skin and clothing. Wash immediately with plenty of water if contact it carelessly.
4. The ELISA Microtiter plate obtained from cold storage conditions should be adjusted to room temperature before use. The unused plate should be kept in a sealed bag with desiccant.
5. Concentrated washing liquid at low temperature condition is easy to crystallization, it should be adjusted to room temperature in order to dissolve completely before use.
6. The results shall depend on the readings of the micro-plate Reader.
7. **Each reagent is optimized for use in the GEH092. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other GEH092 with different lot numbers.**
8. All the samples and waste material should be treated as infective material according to the relevant rules of biosafety.

Storage and expiry date

Store unopened at 2 to 8℃. Do not freeze.

Please store the opened plate at 2-8℃, the shelf life of the opened kit is up to 1 month.

Expiry date: expiration date is on the box.

Sample preparation

1. **Serum:** Human serum can be used as detected sample. Fresh collected samples should be fully centrifuged, then take clear liquid for test. Anticoagulant (such as EDTA, sodium citrate and heparin, etc.) in samples do not affect the results.
2. Samples with sodium azide cannot be detected. Because the sodium azide may inhibit the activity of HRP. Samples containing suspended fibrin or moderate hemolysis cannot be detected.
3. Samples can be stored at 2-8℃ for one week and stored at -20 ℃ for more than a week. Avoid freeze-thaw cycles. Freezing samples should be mixed fully before test.
4. **Wash Buffer:** The **20×Concentrated Wash Buffer** should be adjusted to room temperature to make the sediment dissolved fully before use, then dilute it with deionized water at 1:19.

Assay procedure

Bring all reagents and samples to room temperature for about 30 min, restore to room temperature (25℃) before use. All the reagents should be mixed thoroughly by gently swirling before pipetting. Avoid foaming. The unused ELISA Microtiter plate should be sealed as soon as possible and stored at 2-8℃.

1. **Number:** number the sample and control in order (multiple well), and keep a record of control wells and sample wells. Set 1 well for blank control, 3 wells for negative control and 1 well for positive control. **Samples need test in duplicate.** (Blank well is not necessary for dual-wavelength detection)
2. **Add sample:**
   (1) Add 100 μL of **Positive/Negative Control** respectively to **Positive/Negative Control** wells, keep the blank control well empty.
   (2) Dilute the tested **Serum** with **Sample Diluent** at 1:10 into sample well (add 100 μL of sample diluent and add 10 μL of serum sample), gently tap the plate to mix thoroughly.
3. **Incubate:** cover the ELISA plate with sealer. Incubate for 30 min at 37℃ in shading light.
4. **Wash:** remove the plate sealer and aspirate the liquid of each well. Repeat the washing procedure for 5 times with **Wash Buffer** and immerse for 30-60 sec each time. Invert the plate and pat it against thick clean absorbent paper (If bubbles exist in the wells, clean tips can be used to prick them).
5. **HRP conjugate:** add 100 μL of **HRP Conjugate** to each well except the blank control well.
6. **Incubate:** cover the ELISA plate with sealer. Incubate for 30 min at 37℃ in shading light.
7. **Wash:** repeat step 4.
8. **Add substrate:** add 50 μL of **Substrate Reagent A** and 50 μL of **Substrate Reagent B** to each well. Gently tap the plate to mix thoroughly. Cover with a new plate sealer. Incubate for 10 min at 37℃ in shading light.
9. **Stop reaction:** add 50 μL of **Stop Solution** to each well, gently tap the plate to mix thoroughly.
10. **OD Measurement:** set the Microplate Reader wavelength at 450 nm (it is recommended to set the dual wavelength at 450 nm/630 nm) to detect A value of each well. Blank well is not needed when using dual wavelength 450 nm/630 nm for detection. **Note: Read the results within 10 min.**

Reference value

Normally, blank well (just chromogenic agent and stop solution): A450 ≤ 0.08. Positive control (PC): A450 > 0.50. Negative control (NC): A450 < 0.08.

Interpretation of test results

Use each test result independently. Determine the result according to the Cut Off value.

Cut Off(C.0) = 0.10 + A value of average negative control (NC) (when A450 of average NC < 0.05, calculate at 0.05; while A450 of average NC ≥ 0.05, calculate at the actual value).

1. Positive result: A450 of Sample ≥ Cut Off.
2. Negative result: A450 of Sample < Cut Off.
3. Negative result indicates there is no SPE antibody (IgG) detected in samples, while positive result means the opposite.
4. The positive result of SPE antibody (IgG) is an important auxiliary index of diagnosis of infertility.

Limitations of test method

1. This test is only used as the qualitative detection of SPE- IgG antibodies in serum of human.
2. The detection results of this kit are only for reference. For confirmation of the result, please combine the symptoms and other methods of detection, this detection cannot be used as the only criteria for result.