






HSV 1 IgG GENLISA™ ELISA

REF : KDT003

Ver 1.2


IVD

Enzyme Immunoassay for the Qualitative Determination of HSV 1 IgG in human serum and plasma.

| | | | |
|---|-----------------------------|---|--------------------------------|
| IVD | For In-vitro Diagnostic Use | REF | Catalog Number |
|  | Store At | LOT | Batch Code |
|  | Manufactured By |  | Biological Risk |
|  | Expiry Date |  | Consult Operating Instructions |

For In-vitro Diagnostic Use only. Purchase does not include or carry the right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of KRISHGEN Pudgala LLP is strictly prohibited.

REF KDT003

 96 tests

Krishgen Pudgala LLP Unit Nos#318/319, Shah & Nahar, Off Dr E Moses Road, Worli, Mumbai 400018. India.
Tel: +91-22-49198700 | email: sales@krishgenpudgala.com

Introduction:

Herpes simplex virus (HSV) is the most common human pathogens, human being are the only natural host. The virus exists in the patients, restoring healthy carriers and forms blisters or scars. They also transmit through fluid, saliva and faeces. The main mode of transmission is direct contact, saliva can be contaminated. Indirect transmission can be through other materials e.g. utensils. HSV infection has now become the world's fourth largest infectious diseases.

Herpes simplex virus (HSV) belongs to the herpes virus family subfamily a virus, the virus particle size of about 180 nm. According to difference in the antigenicity of the virus, it is currently divided into type I and type II. Herpes simplex virus is widespread and has many modes of transmission. HSV type I mainly transmits through direct contact with the skin and mucous membrane. HSV type I infection is more common in the population. In pregnant women suffering from primary herpes virus infection, the virus can pass through the placenta causing fetal congenital infection. If a pregnant woman birth canal is infected it can pass to the baby during delivery causing neonatal infection Therefore, HSV type I antibody detection is of great significance to improve the level of eugenics.

Intended Use:

The HSV 1 IgG GENLISA™ ELISA is intended for the qualitative determination of HSV 1 IgG in human serum and plasma.

Principle:

HSV 1 IgG GENLISA™ ELISA is an indirect enzyme linked immunosorbent assay which is designed to qualitatively detect HSV 1 IgG antibody present in the human serum and plasma. Purified HSV 1 antigen is pre-coated onto microwells. Samples and Controls are pipetted into microwells and HSV 1 IgG antibody present in test sample binds to the antigen coated on the wells. And then enzyme labelled anti-antibody conjugate is pipetted and incubated to form an immune complex. After washing microwells in order to remove any non-specific binding, the TMB Substrate Solution is added to microwells and color develops proportionally to the amount of HSV 1 IgG present in the sample. Color development is then stopped by addition of stop solution. Absorbance is measured at 450 nm.

Materials Provided:

1. Microtiter Coated Plate (8x12 wells) - 1 no
2. Negative Control - 1 ml
3. Positive Control - 1 ml
4. Enzyme Conjugate - 6.5 ml
5. (40X) Wash Buffer - 20 ml
6. Sample Diluent - 11 ml
7. TMB Substrate - 12 ml
8. Stop Solution - 12 ml
9. Instruction Manual.

Materials to be provided by the End-User:

1. Microtiter Plate Reader able to measure absorbance at 450 nm.
2. Adjustable pipettes and multichannel pipettor to measure volumes ranging from 25 ul to 1000 ul
3. Deionized (DI) water
4. Wash bottle or automated microplate washer
5. Graph paper or software for data analysis
6. Timer
7. Absorbent Paper

Handling/Storage:

1. Store main kit components at recommended storage temperature indicated on the component label.

2. Before using, bring all components to room temperature (18-25°C). Upon assay completion return all components to appropriate storage conditions.
3. The Substrate is light-sensitive and should be protected from direct sunlight or UV sources.

Health Hazard Warnings:

1. Reagents that contain preservatives may be harmful if ingested, inhaled or absorbed through the skin. Refer to the MSDS online for details.
2. To reduce the likelihood of blood-borne transmission of infectious agents, handle all serum and/or plasma in accordance with NCCLS regulations.

**Specimen Collection and Handling:**

Serum- Coagulate at room temperature for 10-20 minutes; centrifuge for 20-min at 2000-3000 rpm. Remove the supernatant. If precipitation appears, recentrifuge.

Plasma- Use EDTA or citrate plasma as an anticoagulant, mix for 10-20 minutes; centrifuge for 15-min at 2000-3000 rpm. Remove the supernatant carefully. If precipitation appears, recentrifuge.

Reagent Preparation:

1. Wash Buffer (1X) Dilution: To make Wash Buffer (1X), add 2.5 ml of Wash Buffer (40X) to 97.5 ml of DI water. This is the working solution.
2. Allow all components to reach RT (Room Temperature) prior to use in the assay.

Test Procedure:

1. All reagents should be allowed to reach room temperature before use.
2. Add **100 ul Sample Diluent** to the sample wells.
3. Add **10 ul Sample** to the respective sample wells. Mix gently.
4. Dispense **100 ul Negative Control** and **100 ul Positive Control** to the negative and positive wells respectively.
5. Shake gently for 30 seconds to mix well. Incubate at 37°C for 20 minutes.
6. Aspirate and wash plate 5 times with **(1X) Wash Buffer** and blot residual buffer by firmly tapping plate upside down on absorbent paper. Wipe of any liquid from the bottom outside of the microtiter wells as any residue can interfere in the reading step. All the washes should be performed similarly.
7. Add **50 ul of Enzyme Conjugate** to each well except the blank well.
8. Incubate at 37°C for 20 minutes.
9. Repeat the Aspiration / Wash Step.
10. Add **100 ul of TMB Substrate** into each well except blank well.
11. Incubate at 37°C for 10 minutes.
12. Add **100 ul of Stop Solution**. Read result with an ELISA reader at 450 nm within 15 minutes of stopping the reaction.

Interpretation of Results:

Determine the Mean Absorbance for each set of duplicate Controls and Samples. Results are interpreted qualitatively by calculating a cut-off value for each sample on the basis of the cut-off determined. Read Absorbance at 450nm with an ELISA reader.

Cut-Off Value (CO) = OD_{mean} of Negative Control x 2.1

Note: In case Negative Control OD Value is <0.09 , the Cut-Off Value is calculated as OD_{mean} of NC (to be taken as) 0.09×2.1 .
 In case Negative Control OD Value is >0.09 , the Cut-Off Value is calculated as OD_{mean} of NC (actual value) $\times 2.1$.

Positive Results: OD value \geq CO

Specimens giving an absorbance equal to or greater than the CO are considered initially reactive, which indicates that Anti-HSV1 antibody IgG has probably been detected using the ELISA.

All initially reactive specimens should be retested in duplicates using the Anti-HSV1 antibody IgG ELISA before the final assay results interpretation. Repeatedly reactive specimens may be considered positive for Anti-HSV1 antibodies with the Anti-HSV1 antibody IgG ELISA.

Negative Results: OD value $<$ CO

Specimens giving absorbance less than the CO are negative for the assay, which indicates that no Anti-HSV1 antibody has been detected with the Anti-HSV1 antibody IgG ELISA.

| | |
|----------------------|---|
| Cut Off Value | OD_{mean} of Negative Control x 2.1 |
| Positive | \geq CO |
| Negative | $<$ CO |

Validity of the test:

The test is valid if the following conditions are met,

Mean Absorbance of Negative Control ≤ 0.1
 Mean Absorbance of Positive Control ≥ 0.8

Reference Values:

It is recommended that each laboratory establishes its own normal and pathological reference ranges, as usually done for other diagnostic parameters, too. Therefore, the above mentioned reference values provide a guide only to values which might be expected.

Limitations of Method:

Any clinical diagnosis should not be based on the results of in vitro diagnostic methods alone. Physicians are supposed to consider all clinical and laboratory findings possible to state a diagnosis.

Performance Characteristics:

Sensitivity:

Limit of Detection: When detecting anti-herpes simplex virus 1 antibody limits, laboratory quality control positive samples diluted till 1:8 with the Anti-HSV1 antibody IgG ELISA kit should be in the positive.

Specificity:

The recombinant antigen used in the kit is specific for Herpes Simplex Virus.

Precision:

Intra-Assay: CV% ≤15%.

Inter-Assay: CV% ≤20%

Safety Precautions:

- **This kit is For In-vitro Diagnostic Use only.** Follow the working instructions carefully.
- The expiration dates stated on the kit are to be observed. The same relates to the stability stated for reagents
- Do not use or mix reagents from different lots.
- Do not use reagents from other manufacturers.
- Avoid time shift during pipetting of reagents.
- All reagents should be kept in the original shipping container.
- Some of the reagents contain small amount of sodium azide (< 0.1 % w/w) as preservative. They must not be swallowed or allowed to come into contact with skin or mucosa.
- Source materials maybe derived from human body fluids or organs used in the preparation of this kit were tested and found negative for HBsAg and HIV as well as for HCV antibodies. However, no known test guarantees the absence of such viral agents. Therefore, handle all components and all patient samples as if potentially hazardous.
- Since the kit contains potentially hazardous materials, the following precautions should be observed
 - Do not smoke, eat or drink while handling kit material
 - Always use protective gloves
 - Never pipette material by mouth
 - Wipe up spills promptly, washing the affected surface thoroughly with a decontaminant.
- In any case GLP should be applied with all general and individual regulations to the use of this kit.



LIMITED WARRANTY

Krishgen Pudgala LLP does not warrant against damages or defects arising in shipping or handling, or out of accident or improper or abnormal use of the product; against defects in products or components not manufactured by Krishgen Pudgala LLP, or against damages resulting from such non-Krishgen Pudgala LLP made products or components. Krishgen Pudgala LLP passes on to customer the warranty it received (if any) from the maker thereof of such non-Krishgen made products or components. This warranty also does not apply to product to which changes or modifications have been made or attempted by persons other than pursuant to written authorization by Krishgen Pudgala LLP.

THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Krishgen Pudgala LLP shall be to repair or replace the defective product in the manner and for the period provided above. Krishgen Pudgala LLP shall not have any other obligation with respect to the products or any part thereof, whether based on contract, tort, strict liability or otherwise. Under no circumstances, whether based on this Limited Warranty or otherwise, shall Krishgen Pudgala LLP be liable for incidental, special, or consequential damages.

This Limited Warranty states the entire obligation of Krishgen Pudgala LLP with respect to the product. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.

Krishgen Pudgala LLP, 2021.

THANK YOU FOR USING KRISHGEN PRODUCT!



Krishgen Pudgala LLP

Unit No.1/2, Om Sainath Commercial Complex,
Off Mankoli-Anjur Phata Road. Village Dapode, Bhiwandi 421302.













Regulatory Status:

| | |
|------------------|--------|
| CE Marked | Europe |
| FDA registered | USA |
| CDSCO registered | India |

SCHEMATIC ASSAY PROCEDURE

| | |
|----|---|
| 1 | All reagents should be allowed to reach room temperature before use. |
| 2 | Add 100 ul Sample Diluent to the respective sample wells . |
| 3 | Add 10 ul Sample to the respective sample wells . Mix gently. |
| 4 | Dispense 100 ul Negative Control and 100 ul Positive Control to the negative and positive well respectively. |
| 5 | Shake gently for 30 seconds to mix well. Incubate at 37°C for 20 minutes . |
| 6 | Aspirate and wash plate 5 times with (1X) Wash Buffer and blot residual buffer by firmly tapping plate upside down on absorbent paper. Wipe of any liquid from the bottom outside of the microtiter wells as any residue can interfere in the reading step. All the washes should be performed similarly. |
| 7 | Add 50 ul of Enzyme Conjugate to each well except the blank well. |
| 8 | Seal the plate and incubate at 37°C for 20 minutes . |
| 9 | Repeat the Aspiration / Wash Step. |
| 10 | Add 100 ul of TMB Substrate to all wells. |
| 11 | Incubate at 37°C for 10 minutes . |
| 12 | Add 100 ul of Stop Solution . Read result with an ELISA reader at 450 nm within 15 minutes of stopping the reaction. |

SYMBOLS KEY

| | |
|---|-------------------------------|
|  | Microtiter Plate (8x12 wells) |
|  | Positive Control |
|  | Negative Control |
|  | Enzyme Conjugate |
|  | Sample Diluent |
|  | (40X) Wash Buffer |
|  | TMB Substrate |
|  | Stop Solution |
|  | Consult Instructions for Use |
|  | Catalog Number |
|  | Expiration Date |
|  | Storage Temperature |