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# **Human Lassa Virus IgM (LV-IgM)ELISA Kit**

**96 Tests**

**Catalogue Number: SLY3764Hu**

**Store all reagents at 2-8°C**

**Validity Period: six months**

**Method:Indirect ELISA**

**For samples:**

**In serum, plasma, culture media or any biological fluid.**

**FOR RESEARCH USE ONLY !**

**NOT FOR THERAPEUTIC OR DIAGNOSTIC APPLICATIONS !**

**PLEASE READ THROUGH ENTIRE PROCEDURE BEFORE BEGINNING !**

# Human Lassa Virus IgM (LV-IgM) ELISA Kit

**FOR RESEARCH USE ONLY**

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## Purpose

Our Human Lassa Virus IgM (LV-IgM)ELISA Kit is to for the qualitative determination of LV-IgM in Human serum, plasma, culture media or any biological fluid.

## Principle

The ELISA is based on the the qualitative enzyme immunoassay technique.The Microplate provided in this kit has been pre-coated with an antigen specific to LV-IgM, make it to solid-phase antigen.Samples are added to the Microplate wells and combined to the specific antigen. Then a Horseradish Peroxidase (HRP)-conjugated antigen specific for LV-IgM is added to each Microplate well and incubated,so the antigen-antibody-Enzyme labeled antigen complex is formed.Following a wash to remove any unbound reagent,then the TMB substrate solution is added to each well. Only those wells that contain LV-IgM and HRP conjugated LV antigen will appear blue in color and then turn yellow after the addition of the stop solution. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm. The qualitative determination of LV-IgM is determined by comparing with the CUT OFF value.

## Sample collection and storages

**Serum** - Use a serum separator tube and allow samples to clot for 30 minutes before centrifugation for 10 minutes at approximately 3000×g. Remove serum and assay immediately or aliquot and store samples at -20°C or -80°C.Avoid repeated freeze-thaw cycles

**Plasma** - Collect plasma using EDTA or heparin as an anticoagulant. Centrifuge samples for 30 minutes at 3000×g at 2-8°C within 30 minutes of collection. Store samples at -20°C or -80°C. Avoid repeated freeze-thaw cycles.

**Cell culture supernates and other biological fluids** - Remove particulates by centrifugation and assay immediately or aliquot and store samples at -20°C or -80°C. Avoid repeated freeze-thaw cycles.



**Note:** The samples shoule be centrifugated dequately and no hemolysis or granule was allowed.

## Materials required but not supplied

1. Standard microplate reader(450nm)
2. Precision pipettes and Disposable pipette tips.
3. 37 °C incubator

## Precautions

1. Do not substitute reagents from one kit to another. Standard, conjugate and microplates are matched for optimal performance. Use only the reagents supplied by manufacturer.
2. Do not remove microplate from the storage bag until needed. Unused strips should be stored at 2-8°C in their pouch with the desiccant provided.
3. Mix all reagents before using.

Remove all kit reagents from refrigerator and allow them to reach room temperature ( 20-25°C)

## Materials supplied

| Name                   | 96<br>determinations | 48<br>determinations |
|------------------------|----------------------|----------------------|
| Microelisa stripplate  | 12*8strips           | 12*4strips           |
| Negative control       | 0.5ml                | 0.5ml                |
| Positive control       | 0.5ml                | 0.5ml                |
| HRP-Conjugate reagent  | 10.0ml               | 5.0ml                |
| 20X Wash solution      | 25ml                 | 15ml                 |
| Sample Diluent         | 6.0ml                | 3.0ml                |
| Chromogen Solution A   | 6.0ml                | 3.0ml                |
| Chromogen Solution B   | 6.0ml                | 3.0ml                |
| Stop Solution          | 6.0ml                | 3.0ml                |
| Closure plate membrane | 2                    | 2                    |
| User manual            | 1                    | 1                    |
| Sealed bags            | 1                    | 1                    |

## Reagent preparation

20×wash solution:Dilute with Distilled or deionized water 1:20.

## Assay procedure

1. Prepare all reagents before starting assay procedure. It is recommended that all Standards and Samples be added in duplicate to the Microelisa Stripplate.
2. Separately add Positive control and Negative control 50µl to the Positive and Negative well; Add testing sample 10µl then add Sample Diluent 40µl to testing sample well.
3. Add 100µl of HRP-conjugate reagent to each well, cover with an adhesive strip and incubate for 60 minutes at 37°C.
4. Aspirate each well and wash, repeating the process four times for a total of five washes. Wash by filling each well with Wash Solution (400µl) using a squirt bottle, manifold dispenser or autowasher. Complete removal of liquid at each step is essential to good performance. After the last wash, remove any remaining Wash Solution by aspirating or decanting. Invert the plate and blot it against clean paper towels.
5. Add chromogen solution A 50µl and chromogen solution B 50µl to each well. Gently mix and incubate for 15 minutes at 37°C. **Protect from light.**
6. Add 50µl Stop Solution to each well. The color in the wells should change from blue to yellow. If the color in the wells is green or the color change does not appear uniform, gently tap the plate to ensure thorough mixing.
7. Read the Optical Density (O.D.) at 450 nm using a microtiter plate reader within 15 minutes.

## **8. Determine the result**

1. Test validity: the average of Positive control well  $\geq 1.00$ ; the average of Negative control well  $\leq 0.15$ .
2. Calculate Critical (CUT OFF): Critical = the average of Negative control well + 0.15.  
Negative Result: sample OD < Calculate Critical (CUT OFF) is Negative.  
Positive Result: sample OD  $\geq$  Calculate Critical (CUT OFF) is Positive.

## **Storage and validity**

Storage: 2-8°C.

Validity: 6 months.