LCMV ELISA Kit
Catalogue Number: OM700064
(96Tests)
Store all reagents at 2-8°C
Collect sample: serum or blood plasma

FOR LABORATORY RESEARCH USE ONLY.
NOT FOR THERAPEUTIC OR DIAGNOSTIC APPLICATIONS!
PLEASE READ THROUGH ENTIRE PROCEDURE BEFORE BEGINNING!

INTENDED USE

This Exenatide ELISA kit is intended for laboratory research use only and is not to be used for diagnostic or therapeutic procedures. The Stop Solution changes the color of the solution from blue to yellow, after which the color intensity is measured spectrophotometrically at a wavelength of 450 nm. To determine the the concentration of Exenatide in the samples, this Exenatide ELISA Kit is provided with a set of calibration standards. The calibration standards are assayed at the same time as the samples, allowing the operator to plot a standard curve of optical density versus the corresponding Exenatide concentration. By comparing the optical density of the samples to this standard curve, the concentration of Exenatide in the samples can be determined.

PRINCIPLE OF THE ASSAY

The LCMV kit employs an indirect Enzyme-Linked Immunosorbent Assay (ELISA) method. Samples and HRP-conjugated secondary antibody are sequentially added to the microplate wells pre-coated with LCMV antigen, followed by incubation and thorough washing. After color development with the TMB substrate, the reaction is stopped with the stop solution. The absorbance (OD value) is then measured at a wavelength of 450 nm (with a reference wavelength of 630 nm) using a microplate reader to determine the presence or absence of anti-LCMV antibodies (LCMV-IgG-Ab) in the test samples.

REAGENTS PROVIDED

All reagents provided are stored at 2-8° C. Refer to the expiration date on the label.

1. LCMV Pre-coated plate	96 wells	1 plate
2. 10x Assay Buffer	30 mL	1 tube
3. HRP-Goat Anti-Human IgG	20 µ L	1 vial
4. Sample Diluent	30 mL	1 vial
5. TMB Substrate	13 mL	1 vial
6. Stop Solution	8 mL	1 vial
7. Instruction	1 copy	

SAMPLE COLLECTION AND STORAGE

Serum – Collect blood in tubes free of pyrogens and endotoxins. Allow the blood to clot. Centrifuge at 3000 rpm for 10 minutes to carefully separate the serum and blood cells.

Plasma – Use EDTA, citrate, or heparin as anticoagulants. Centrifuge at 3000 rpm for 10 minutes and collect the supernatant.

Cell Culture Supernatant – Centrifuge at 3000 rpm for 10 minutes to remove particles and polymers.

Tissue Homogenate – Mince tissue with an appropriate amount of physiological saline. Centrifuge at 3000 rpm for 10 minutes and collect the supernatant.

Sample Storage – If samples are not tested immediately after collection, aliquot them for single-use and store at -20°C to avoid repeated freeze-thaw cycles. Thaw at room temperature before use and ensure thorough mixing.

DO NOT USE HEAT-TREATED SPECIMENS.

MATERIALS REQUIRED BUT NOT SUPPLIED

Microplate reader (wavelength 450 nm), pipettes (10 µL, 100 µL, 1 mL), multichannel pipette (300 µL), pipette tips, 37°C constant temperature incubator/water bath.

PRECAUTIONS

1.Allow all kit components to equilibrate to room temperature for at least 20 minutes before use. Crystals may form at the bottom of the concentrated wash buffer bottle before warming; ensure they are completely dissolved before dilution.

2.If samples are lyophilized, dissolve and mix thoroughly with the sample diluent before use.

3.During the reaction, place the microplate in a clean, enclosed space to prevent foreign matter from falling into the wells.

4.After washing and patting dry, remove any residual bubbles from all wells. After opening, return unused strips to the sealed aluminum foil bag with desiccant and store tightly closed at 4°C.
5.During the procedure, use brand new, clean pipette tips, wash bottles, vessels, etc.
6.This kit is for research use only. It is not intended for clinical or human experimentation. The experimenter assumes all responsibility for any consequences arising from such use, and the company bears no liability.

ASSAY PROCEDURE

1.Dilute the concentrated wash buffer (10X) 10-fold with distilled water to prepare the working wash solution.
2.Remove the LCMV antigen-coated 96-well microplate and allow it to equilibrate to room temperature. Open the sealed aluminum foil bag just before adding samples.
3.Dilute the test samples 1:200 with the dilution buffer. Add 100 µL/well to the reaction wells. (Complete the addition process within 15 minutes.)
4.Incubate in a 37° C constant temperature incubator for 1 hour in the dark. After incubation, discard the liquid and wash each well three times with 250 µL/well of working wash solution for 90 seconds per wash. Pat dry on lint-free paper.
5.Prepare a 1:1000 dilution of the HRP-conjugated goat anti-human secondary antibody with the dilution buffer according to the volume needed for the number of samples to be tested (prepare immediately before use). Add 100 µL/well. Incubate in a 37℃ constant temperature incubator for 1 hour in the dark. Wash each well four times with 250 µL/well of working wash solution for 90 seconds per wash. Pat dry on lint-free paper.
6.Add 100 µL/well of TMB substrate solution (brought to room temperature beforehand) using a pipette. Incubate at 37℃ for 5 minutes in the dark. Do not shake.
7.Add 50 µL/well of stop solution using a pipette, and shake gently for 5 seconds to mix.
8.Read the absorbance at 450 nm using a microplate reader within 15 minutes.

TYPICAL DATA

Result Interpretation

The experimental results must meet the following validity criteria:
Positive Control Reference Value: $OD_{450} > 0.100$;
Negative Control Reference Value: $OD_{450} \leqslant 0.100$