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# **LAMP1 IQ-ELISA Kit**



| Overview |
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| Quantity:          | 96 tests  |
|--------------------|---|
| Target:            | LAMP1   |
| Reactivity:        | Human   |
| Method Type:       | Sandwich ELISA  |
| Application:       | ELISA   |
| Product Details    |   |
| Purpose:           | Human Immunoquantitative (PCR-Based) LAMP1 (CD107a) ELISA Kit for cell culture                |
|                    | supernatants, plasma, and serum samples.  |
| Sample Type:       | Cell Culture Supernatant, Plasma, Serum   |
| Analytical Method: | Semi-Quantitative   |
| Detection Method:  | qPCR  |
| Sensitivity:       | 0.1 ng/mL   |
| Characteristics:   | IQ-ELISAs employ specific capture antibodies coated on a 96-well PCR plate. Standards and     |
|                    | samples are pipetted into the wells, the target protein in the standards and samples binds to |
|                    | the immobilized antibody. The wells are washed and the detection affinity reagent is added to |
|                    | the wells where it binds to any captured antigen. The wells are washed, and primers and PCR   |
|                    | master mix are added to each well. The plate is placed into a real time PCR instrument for    |
|                    | cycling and measurement of DNA amplification. The cycle number where amplification is         |
|                    | detected is proportional to the amount of affinity detection reagent that bound to captured   |
|                    | antigen in each well.   |

### **Product Details**

### Components:

- LAMP1 (CD107a) Microplate (Item A): 96 well PCR plate coated with anti-Human LAMP1 (CD107a)
- Wash Buffer I Concentrate (20x) (Item B): 25 ml of 20x concentrated solution
- Standards (Item C): 2 vials of recombinant Human LAMP1 (CD107a)
- Assay Diluent A (Item D): 30 ml diluent buffer, 0.09% sodium azide as preservative. For Standard/Sample (serum/plasma) diluent
- Assay Diluent B (Item E): 15 ml of 5x concentrated buffer. For Standard/Sample (cell culture medium/urine) diluent
- Detection Affinity Reagent for LAMP1 (CD107a) (Item F): 2 vials of a 4x concentrated solution of anti-Human LAMP1 (CD107a) affinity reagent
- IQELISA Detection Reagent (Item G): 1.4ml of a 10x concentrated stock
- Primer Solution (Item I): 1.7 ml vial
- PCR Master Mix (Item J): 1.2 ml vial
- PCR Preparation buffer (Item K): 1ml vial of 10x concentrated buffer
- Final Wash Buffer (Item L): 10ml vial of 10x concentrated buffer

### Material not included:

- · Real-time PCR instrument, Bio-Rad recommended
- Precision pipettes to deliver 2 µL to 1 mL volumes
- · Adjustable 1-25 mL pipettes for reagent preparation
- 100 mL and 1 liter graduated cylinders
- Absorbent paper
- · Distilled or deionized water
- · Log-log graph paper or computer and software for data analysis
- · Tubes to prepare standard or sample dilutions
- Heating block or water bath capable of 80°C

# **Target Details**

| Target:           | LAMP1                           |  |
|-------------------|---------------------------------|--|
| Alternative Name: | LAMP1 (CD107a) (LAMP1 Products) |  |
| Gene ID:          | 3916                            |  |
| UniProt:          | P11279                          |  |
| Pathways:         | Autophagy                       |  |

## **Application Details**

### Application Notes:

The Immuno-Quantitative ELISA (IQELISA) kits are an innovative assay platform that combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in an assay that is simultaneously familiar and cutting edge and enables the use of only 1/10th the sample volume while also providing 10x more sensitivity than a traditional ELISA.

# **Application Details**

| Comment:         | The Immuno-Quantitative ELISA (IQELISA™) kits are an innovative assay platform that  |  |  |
|------------------|--|--|--|
|                  | combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. Also   |  |  |
|                  | called immuno-PCR, this detection platform results in an assay that is simultaneously familiar   |  |  |
|                  | and cutting edge. Compared to traditional ELISA, IQELISA™ enables the use of only 1/10th the   |  |  |
|                  | sample volume while also providing 10x more sensitivity.   |  |  |
| Sample Volume:   | 25 μL  |  |  |
| Plate:           | Pre-coated   |  |  |
| Protocol:        | 1. Prepare all reagents, samples and standards as instructed   |  |  |
|                  | 2. Add 25 $\mu$ L standard or sample to each well. Incubate for 2.5 hours at room temperature or overnight at 4 $^{\circ}$ C                                     |  |  |
|                  | 3. Add 25 µL detection affinity reagent to each well. Incubate 1 hour at room temperature 4. Add 25µL of IQELISA Detection Reagent to each well. Incubate 1 hour |  |  |
|                  |  |  |  |
|                  | 5. Add 15μL Primer solution 10μL of PCR master mix to each well  |  |  |
|                  | 6. Run real-time PCR   |  |  |
| Restrictions:    | For Research Use only  |  |  |
| Handling         |  |  |  |
| Storage:         | 4 °C,-20 °C,-80 °C   |  |  |
| Storage Comment: | May be stored for up to 6 months at 2° to 8°C from the date of shipment. Standard  |  |  |
|                  | (recombinant protein) should be stored at -20°C or -80°C (recommended at -80°C) after  |  |  |
|                  | reconstitution. Opened PCR plate or reagents may be stored for up to 1 month at 2° to 8°C.   |  |  |
|                  | Note: the kit can be used within one year if the whole kit is stored at -20°C. Avoid repeated  |  |  |
|                  | freeze-thaw cycles.  |  |  |
| Expiry Date:     | 6 months   |  |  |
|                  |  |  |  |