Datasheet for ABIN2859211

# TREM1 ELISA Kit

1 Image

Go to Product page

## Overview

| | |
|---|---|
| Quantity: | 96 tests |
| Target: | TREM1 |
| Binding Specificity: | AA 21-202 |
| Reactivity: | Mouse |
| Method Type: | Sandwich ELISA |
| Detection Range: | 31.2-2000 pg/mL |
| Minimum Detection Limit: | 31.2 pg/mL |
| Application: | ELISA |

## Product Details

| | |
|---|---|
| Purpose: | Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse TREM-1 |
| Brand: | PicoKine™ |
| Sample Type: | Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Cell Lysate, Tissue Homogenate |
| Analytical Method: | Quantitative |
| Detection Method: | Colorimetric |
| Immunogen: | Expression system for standard: NSO<br>Immunogen sequence: A21-S202 |
| Specificity: | Expression system for standard: NSO<br>Immunogen sequence: A21-S202 |

## Product Details

| | |
|---|---|
| Cross-Reactivity (Details): | There is no detectable cross-reactivity with other relevant proteins. |
| Sensitivity: | <10pg/mL |
| Material not included: | Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl |

## Target Details

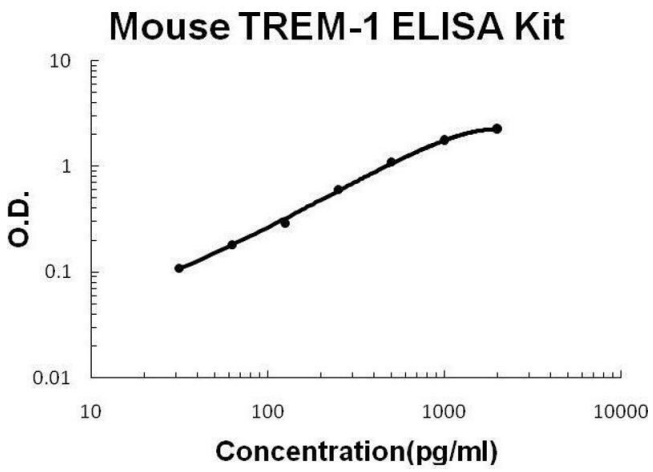
| | |
|---|---|
| Target: | TREM1 |
| Alternative Name: | TREM1 (TREM1 Products) |
| Background: | Protein Function: Stimulates neutrophil and monocyte-mediated inflammatory responses. Triggers release of pro-inflammatory chemokines and cytokines, as well as increased surface expression of cell activation markers. Amplifier of inflammatory responses that are triggered by bacterial and fungal infections and is a crucial mediator of septic shock (By similarity). . Background: Trem1, Triggering receptor expressed on myeloid cells-1, is encoded by Trem1 gene. The expression of Trem1 is in monocytes and neutrophils but not in lymphocytes, dendritic cells, or other cell types. Trem1 is a 30-kD glycoprotein that is reduced to 26 kD by deglycosylation, in agreement with the predicted molecular mass. The Trem1 gene which contains 4 exons maps to chromosome 6p21.1, within a TREM gene cluster and the mouse Trem1 gene maps to chromosome 17 in a region that shows homology of synteny to human chromosome 6. The expression of Trem1 is upregulated by stimulation with lipopolysaccharide(LPS), gram-negative bacteria, and fungi. Cross-linking of Trem1 on neutrophils induces interleukin-8(IL8) and myeloperoxidase secretion, while cross-linking on monocytes induces not only secretion of IL8 but also of monocyte chemotactic protein-1(MCP1, or SCYA2) and tumor necrosis factor(TNF), MCP1 and TNF secretion could be further upregulated by LPS-mediated priming. Trem1 engagement also induces upregulation of adhesion molecules(e.g., ITGB1) and costimulatory molecules(e.g., CD40). Trem1 is associated with DAP12(TYROBP), a molecule frequently associated with activating receptors.<br>Synonyms: Triggering receptor expressed on myeloid cells 1,TREM-1,CD354,Trem1,<br>Full Gene Name: Triggering receptor expressed on myeloid cells 1<br>Cellular Localisation: Membrane, Single-pass type I membrane protein. |
| Gene ID: | 58217 |
| UniProt: | Q9JKE2 |

## Application Details

| | |
|---|---|
| Application Notes: | Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing. |
| Plate: | Pre-coated |
| Protocol: | mouse TREM-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for TREM-1 has been precoated onto 96-well plates. Standards(NSO, A21-S202) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TREM-1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse TREM-1 amount of sample captured in plate. |
| Assay Procedure: | Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL mouse TREM-1 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernates, serum, plasma(heparin, EDTA), cell lysates or tissue homogenates to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse TREM-1 standard solution and each sample be measured in duplicate. |
| Assay Precision: | • Sample 1: n=16, Mean(pg/ml): 252, Standard deviation: 14.93, CV(%): 5.9<br>• Sample 2: n=16, Mean(pg/ml): 559, Standard deviation: 39.13, CV(%): 7<br>• Sample 3: n=16, Mean(pg/ml): 924, Standard deviation: 42.5, CV(%): 4.6,<br>• Sample 1: n=24, Mean(pg/ml): 314, Standard deviation: 24.5, CV(%): 7.8<br>• Sample 2: n=24, Mean(pg/ml): 675, Standard deviation: 48.6, CV(%): 7.2<br>• Sample 3: n=24, Mean(pg/ml): 1104, Standard deviation: 60.72, CV(%): 5.5 |
| Restrictions: | For Research Use only |

## Handling

| | |
|---|---|
| Handling Advice: | Avoid multiple freeze-thaw cycles. |
| Storage: | -20 °C,4 °C |
| Storage Comment: | Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles |
| Expiry Date: | 12 months |




**ELISA**

**Image 1.** Mouse TREM-1 PicoKine ELISA Kit standard curve