**Mouse KLK1/Kallikrein 1 ELISA Kit**

**CATALOG NO:** IMSKLK1KT **LOT NO:** Sample

## INTENDED USE

## BACKGROUND ON Mouse KLK1/Kallikrein 1 ELISA Kit

Repeat steps a-b 2 additional times.  
  
Discard the wash buffer in the wells into an appropriate waste receptacle. Then, invert the plate on the benchtop onto a paper towel and tap the plate to gently blot any remaining liquid.  
  
Add 100 µl of the prepared 1x Avidin-Biotin-Peroxidase Complex into each well. Cover with the plate sealer provided and incubate for 40 minutes at RT (or 30 minutes at 37°C).  
  
Wash the plate 5 times with the 1x wash buffer:  
  
Discard the liquid in the wells into an appropriate waste receptacle. Then, invert the plate on the benchtop onto a paper towel and tap the plate to gently blot any remaining liquid. It is recommended that the wells are not allowed to completely dry at any time.  
  
Add 300 µl of the 1x wash buffer to each assay well. (For cleaner background incubate for 60 seconds between each wash).  
  
Repeat steps a-b 4 additional times.

## PRINCIPLE OF THE ASSAY

The Innovative Research Mouse Klk1 Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid-phase immunoassay specially designed to measure Mouse Klk1 with a 96-well strip plate that is pre-coated with antibody specific for Klk1. The detection antibody is a biotinylated antibody specific for Klk1. The capture antibody is monoclonal antibody from rat and the detection antibody is polyclonal antibody from goat. The kit includes Mouse Klk1 protein as standards.

## OVERVIEW

## TECHNICAL DETAILS

## PREPARATIONS BEFORE ASSAY

## KIT COMPONENTS/MATERIALS PROVIDED

## REQUIRED MATERIALS THAT ARE NOT SUPPLIED

['Microplate reader capable of reading absorbance at 450 nm. Incubator.', 'Automated plate washer (optional)', 'Pipettes and pipette tips capable of precisely dispensing 0.5 µl through 1 ml volumes of aqueous solutions. Multichannel pipettes are recommended for a large numbers of samples.']

## TYPICAL DATA

## Mouse KLK1/Kallikrein 1 ELISA Kit STANDARD CURVE EXAMPLE

This standard curve was generated for demonstration purpose only. A standard curve must be run with each assay.

|  |  |
| --- | --- |
| **Concentration** | **OD Value** |
| 0.0 | 0.061 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## INTRA/INTER-ASSAY VARIABILITY

Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested on one plate to assess intra-assay precision.

Inter-Assay Precision (Precision across assays): Three samples of known concentration were tested in separate assays to assess inter- assay precision.

## REPRODUCIBILITY

\*number of samples for each test n=16.

## PREPARATION BEFORE THE EXPERIMENT

## DILUTION OF Mouse KLK1/Kallikrein 1 ELISA Kit STANDARD

1. Label 7 tubes, one for each standard: 4000 pg/ml, 2000 pg/ml, 1000 pg/ml, 500 pg/ml, 250 pg/ml, 125 pg/ml, and 62.5 pg/ml.  
 2. Pipette 300 µl of the Sample Diluent into each tube.  
 3. Pipette 300 µl of the reconstituted standard into the first tube and mix to create the 4000 pg/ml standard.  
 4. Pipette 300 µl from the 4000 pg/ml tube into the second tube and mix to create the 2000 pg/ml standard.  
 5. Continue this process for the remaining tubes.  
 6. The Sample Diluent serves as the zero standard (0 pg/ml).

## SAMPLE PREPARATION AND STORAGE

Innovative Research recommends that samples are used immediately upon preparation.  
  
Avoid repeated freeze/thaw cycles for all samples.  
  
In the event that a sample type not listed above is intended to be used with the kit, it is recommended that the customer conduct validation experiments in order to be confident in the results.  
  
Due to chemical interference, the use of tissue or cell extraction samples prepared by chemical lysis buffers may result in inaccurate results.  
  
Due to factors including cell viability, cell number, or sampling time, samples from cell culture supernatant may not be detected by the kit.  
  
Samples should be brought to room temperature (18-25°C) before performing the assay without the use of extra heating.

## SAMPLE COLLECTION NOTES

## SAMPLE DILUTION GUIDELINE

## ASSAY PROCEDURE

{% for step in assay\_protocol %}

{{ step }}

{% endfor %}

## DATA ANALYSIS

Subtract the average zero standard O.D. reading. It is recommended that a standard curve be created using computer software to generate a four-parameter logistic (4-PL) curve-fit. A free program capable of generating a four-parameter logistic (4-PL) curve-fit can be found online at: www.myassays.com/four-parameter-logistic-curve.assay. Alternatively, plot the mean absorbance for each standard against the concentration. The measured concentration in the sample can be interpolated by using linear regression of each average relative O.D. against the standard curve generated using curve fitting software. This will generate an adequate but less precise fit of the data. For diluted samples, the concentration reading from the standard curve must be multiplied by the dilution factor. Background on Klk1  
  
Kallikrein-1, also known as tissue kallikrein, is a protein that in humans is encoded by the KLK1 gene. This serine protease generates Lys-bradykinin by specific proteolysis of kininogen-1. KLK1 is a member of the peptidase S1 family. Its gene is mapped to 19q13.3. In all, it has got 262-amino acids which contain a putative signal peptide, followed by a short activating peptide and the protease domain. The protein is mainly found in kidney, pancreas, and salivary gland, showing a unique pattern of tissue-specific expression relative to other members of the family. KLK1 is implicated in carcinogenesis and some have potential as novel cancer and other disease biomarkers. 1 Publications Citing This Product  
  
PubMed ID: 10.1186/s12014-021-09335-9, Proteomics and functional study reveal kallikrein-6 enhances communicating hydrocephalus Visit bosterbio.com/mouse-klk1-picokine-trade-elisa-kit-ek1586-innovative research.html to see all 1 publications.

## DISCLAIMER

This material is sold for in-vitro use only in manufacturing and research. This material is not suitable for human use. It is the responsibility of the user to undertake sufficient verification and testing to determine the suitability of each product's application. The statements herein are offered for informational purposes only and are intended to be used solely for your consideration, investigation and verification.