



[Go to Product page](#)

Datasheet for ABIN921117

## HAVCR1 ELISA Kit

1 Image

3 Publications

### Overview

Quantity:	96 tests
Target:	HAVCR1
Binding Specificity:	AA 21-288
Reactivity:	Human
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 Human KIM1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Cell Lysate, Serum, Plasma (heparin), Plasma (EDTA), Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: S21-T288
Specificity:	Expression system for standard: NSO Immunogen sequence: S21-T288
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

## Product Details

---

Sensitivity: <2pg/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: HAVCR1

Alternative Name: HAVCR1 ([HAVCR1 Products](#))

Target Type: Virus

Background: Protein Function: May play a role in T-helper cell development and the regulation of asthma and allergic diseases. Receptor for TIMD4 (By similarity). In case of human hepatitis A virus (HHA) infection, functions as a cell-surface receptor for the virus. May play a role in kidney injury and repair. .

Background: KIM1(TIM-1), also known as Hepatitis A virus cellular receptor 1, is a protein that in Rats is encoded by the HAVCR1 gene. Infection of canine osteogenic sarcoma cells expressing HAVCR1 with HAV led to conclude that the protein is indeed a receptor for the virus.

Immunofluorescence microscopy demonstrated internalization of HAV by dog cells expressing HAVCR1. Using a monoclonal antibody to Rat Tim1, Tim1 was expressed after activation of naive T cells and on T cells differentiated in Th2-polarizing conditions. By homology of synteny with the Rat Tim1 gene and database analysis, the HAVCR1 gene was mapped to 5q33.2.

Synonyms: Hepatitis A virus cellular receptor 1,HAVcr-1,Kidney injury molecule 1,KIM-1,T-cell immunoglobulin and mucin domain-containing protein 1,TIMD-1,T-cell immunoglobulin mucin receptor 1,TIM,TIM-1,T-cell membrane protein 1,HAVCR1,KIM1, TIM1, TIMD1,

Full Gene Name: Hepatitis A virus cellular receptor 1

Cellular Localisation: Membrane, Single-pass type I membrane protein.

Gene ID: 26762

UniProt: [Q96D42](#)

## 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.

## Application Details

---

Comment:	Sequence similarities: Belongs to the immunoglobulin superfamily. TIM family. Tissue Specificity: Widely expressed, with highest levels in kidney and testis. Expressed by activated CD4+ T-cells during the development of helper T-cells responses. .
Plate:	Pre-coated
Protocol:	human KIM1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for KIM1 has been precoated onto 96-well plates. Standards(NSO, S21-T288) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for KIM1 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 human KIM1 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 human KIM1 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 human cell culture supernates, cell lysates, serum, plasma(heparin, EDTA) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human KIM1 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(pg/ml): 253, Standard deviation: 11.64, CV(%): 4.6</li><li>• Sample 2: n=16, Mean(pg/ml): 746, Standard deviation: 38.8, CV(%): 5.2</li><li>• Sample 3: n=16, Mean(pg/ml): 1220, Standard deviation: 74.42, CV(%): 6.1,</li><li>• Sample 1: n=24, Mean(pg/ml): 317, Standard deviation: 20.3, CV(%): 6.4</li><li>• Sample 2: n=24, Mean(pg/ml): 882, Standard deviation: 59.1, CV(%): 6.7</li><li>• Sample 3: n=24, Mean(pg/ml): 1458, Standard deviation: 115.2, CV(%): 7.9</li></ul>
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

## Publications

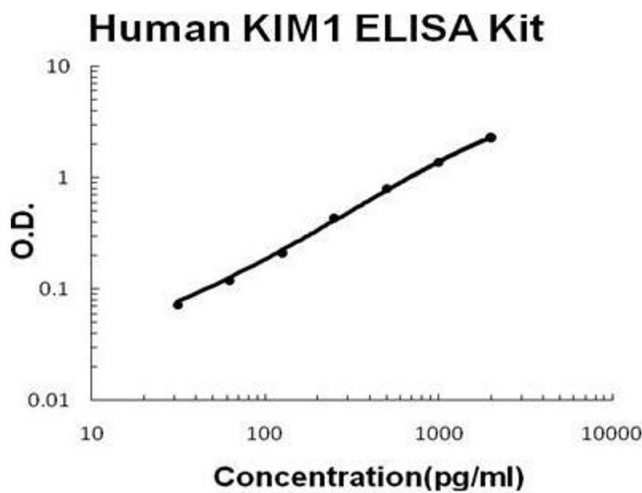
Product cited in:

Lei, Li, Zeng, Mu, Yang, Zhou, Wang, Zhang: "Value of urinary KIM-1 and NGAL combined with serum Cys C for predicting acute kidney injury secondary to decompensated cirrhosis." in: **Scientific reports**, Vol. 8, Issue 1, pp. 7962, (2018) ([PubMed](#)).

Benli, Ayyildiz, Cirrik, Noyan, Ayyildiz, Cirakoglu: "Early term effect of ureterorenoscopy (URS) on the Kidney: research measuring NGAL, KIM-1, FABP and CYS C levels in urine." in: **International braz j urol : official journal of the Brazilian Society of Urology**, Vol. 43, Issue 5, pp. 887-895, (2017) ([PubMed](#)).

Dai, Wang, Lin, Zhang, Wang: "Renoprotective effects of berberine as adjuvant therapy for hypertensive patients with type 2 diabetes mellitus: Evaluation via biochemical markers and color Doppler ultrasonography." in: **Experimental and therapeutic medicine**, Vol. 10, Issue 3, pp. 869-876, (2015) ([PubMed](#)).

## Images



### ELISA

**Image 1.** Human KIM1 PicoKine ELISA Kit standard curve