

Datasheet for ABIN921094

CD147 ELISA Kit**1** Image**1** Publication[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	CD147 (BSG)
Binding Specificity:	AA 25-205
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 Emmprin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Saliva, Urine, Milk
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: T25-H205
Specificity:	Expression system for standard: NSO Immunogen sequence: T25-H205
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:	CD147 (BSG)
Alternative Name:	BSG (BSG Products)
Background:	<p>Protein Function: Plays an important role in targeting the monocarboxylate transporters SLC16A1, SLC16A3 and SLC16A8 to the plasma membrane. Plays pivotal roles in spermatogenesis, embryo implantation, neural network formation and tumor progression. Stimulates adjacent fibroblasts to produce matrix metalloproteinases (MMPS). Seems to be a receptor for oligomannosidic glycans. In vitro, promotes outgrowth of astrocytic processes. .</p> <p>Background: Basigin is a member of the immunoglobulin superfamily that is also known as EMMPRIN, short for extracellular matrix metalloproteinase inducer, and recently has been designated CD147(cluster of differentiation 147). It is a member of the immunoglobulin superfamily, with a structure related to the putative primordial form of the family. As members of the immunoglobulin superfamily play fundamental roles in intercellular recognition involved in various immunologic phenomena, differentiation, and development, basigin is thought also to play a role in intercellular recognition(Miyauchi et al., 1991, Kanekura et al., 1991).This protein is a determinant for the Ok blood group system. Basigin is a type I integral membrane receptor that has many ligands, including the cyclophilin(CyP) proteins Cyp-A and CyP-B and certain integrins. It is expressed by many cell types, including epithelial cells, endothelial cells and leukocytes.</p> <p>Synonyms: Basigin,5F7,Collagenase stimulatory factor,Extracellular matrix metalloproteinase inducer,EMMPRIN,Leukocyte activation antigen M6,OK blood group antigen,Tumor cell-derived collagenase stimulatory factor,TCSF,CD147,BSG,UNQ6505/PRO21383,</p> <p>Full Gene Name: Basigin</p> <p>Cellular Localisation: Cell membrane, Single-pass type I membrane protein . Melanosome . Colocalizes with SLC16A1 and SLC16A8. Identified by mass spectrometry in melanosome fractions from stage I to stage IV..</p>
Gene ID:	682

Target Details

UniProt: [P35613](#)

Pathways: [S100 Proteins](#)

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.

Comment: Sequence similarities: Contains 1 Ig-like C2-type (immunoglobulin-like) domain.
Tissue Specificity: Present only in vascular endothelium in non- neoplastic regions of the brain, whereas it is present in tumor cells but not in proliferating blood vessels in malignant gliomas.

Plate: Pre-coated

Protocol: human Emmprin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Emmprin has been precoated onto 96-well plates. Standards(NSO, T25-H205) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Emmprin 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 Emmprin 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 Emmprin 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, serum, plasma(heparin, EDTA), saliva, urine or human milk to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Emmprin standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(ng/ml): 0.21, Standard deviation: 0.009, CV(%): 4.1
- Sample 2: n=16, Mean(ng/ml): 0.77, Standard deviation: 0.036, CV(%): 4.7
- Sample 3: n=16, Mean(ng/ml): 1.59, Standard deviation: 0.083, CV(%): 5.2,
- Sample 1: n=24, Mean(ng/ml): 0.23, Standard deviation: 0.014, CV(%): 5.9
- Sample 2: n=24, Mean(ng/ml): 0.72, Standard deviation: 0.041, CV(%): 5.7
- Sample 3: n=24, Mean(ng/ml): 1.48, Standard deviation: 0.095, CV(%): 6.4

Restrictions: For Research Use only

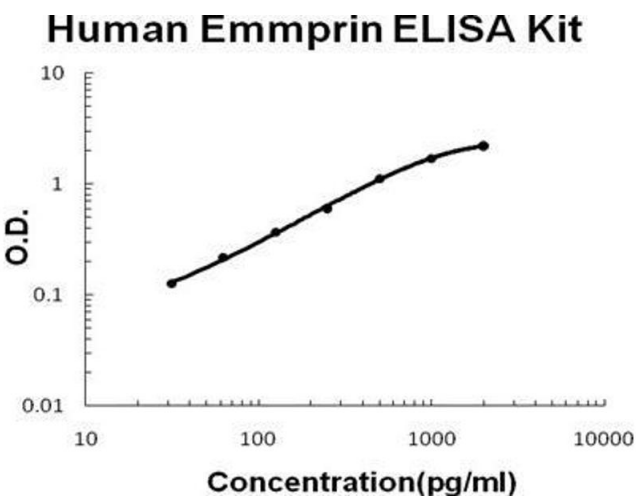
Handling

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:	Xie, Jiao, Chen, Xu, Li, Jiang, Zhang: "EMMPRIN (basigin/CD147) is involved in the morphogenesis of tooth germ in mouse molars." in: Histochemistry and cell biology , Vol. 133, Issue 5, pp. 585-94, (2010) (PubMed).
-------------------	---

Images



ELISA

Image 1. Human Emmprin PicoKine ELISA Kit standard curve