

Datasheet for ABIN1672903

**PI3 ELISA Kit**[Go to Product page](#)**1** Image

## Overview

|                          |                 |
|--------------------------|-----------------|
| Quantity:                | 96 tests        |
| Target:                  | PI3             |
| Binding Specificity:     | AA 23-117       |
| 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 Elafin/PI3 |
| Brand:                      | PicoKine™  |
| Sample Type:                | Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)                   |
| Analytical Method:          | Quantitative   |
| Detection Method:           | Colorimetric   |
| Immunogen:                  | Expression system for standard: NSO<br>Immunogen sequence: A23-Q117                |
| Specificity:                | Expression system for standard: NSO<br>Immunogen sequence: A23-Q117                |
| Cross-Reactivity (Details): | There is no detectable cross-reactivity with other relevant proteins.              |

## Product Details

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: PI3

Alternative Name: PI3 ([PI3 Products](#))

Background: Protein Function: Neutrophil and pancreatic elastase-specific inhibitor of skin. It may prevent elastase-mediated tissue proteolysis.

Background: Elafin, also known as peptidase inhibitor 3 or skin-derived antileukoproteinase(SKALP) is a protein that in humans is encoded by the PI3 gene. It is mapped to 20q13.12. This gene encodes an elastase-specific inhibitor that functions as an antimicrobial peptide against Gram-positive and Gram-negative bacteria. The protein contains a WAP-type four-disulfide core(WFDC) domain, and is thus a member of the WFDC domain family. Most WFDC gene members are localized to chromosome 20q12-q13 in two clusters: centromeric and telomeric. This gene belongs to the centromeric cluster. Expression of this gene is upregulated by bacterial lipopolysaccharides and cytokines. This gene is the neutrophil and pancreatic elastase-specific inhibitor of skin. It may prevent elastase-mediated tissue proteolysis.

Synonyms: Elafin,Elastase-specific inhibitor,ESI,Peptidase inhibitor 3,PI-3,Protease inhibitor WAP3,Skin-derived antileukoproteinase,SKALP,WAP four-disulfide core domain protein 14,PI3,WAP3, WFDC14,

Full Gene Name: Elafin

Cellular Localisation: Secreted.

Gene ID: 5266

UniProt: [P19957](#)

## 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.

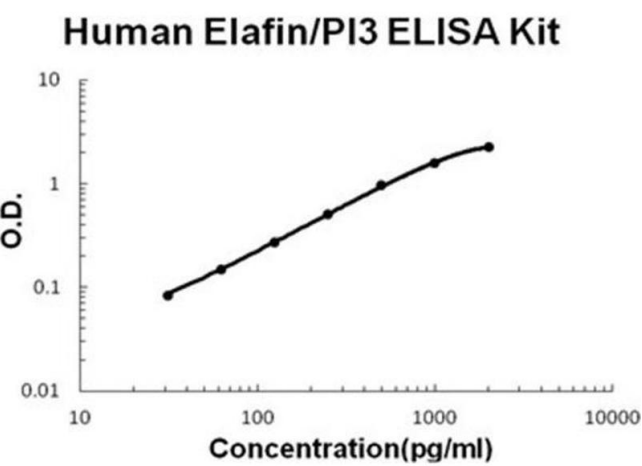
Plate: Pre-coated

## Application Details

|                  |   |
|------------------|---|
| Protocol:        | human Elafin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Elafin has been precoated onto 96-well plates. Standards(NSO, A23-Q117) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Elafin 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 Elafin 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 Elafin 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 and plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Elafin 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): 225, Standard deviation: 12.6, CV(%): 5.6</li><li>• Sample 2: n=16, Mean(pg/ml): 657, Standard deviation: 32.2, CV(%): 4.9</li><li>• Sample 3: n=16, Mean(pg/ml): 1334, Standard deviation: 57.36, CV(%): 4.3,</li><li>• Sample 1: n=24, Mean(pg/ml): 230, Standard deviation: 17.02, CV(%): 7.4</li><li>• Sample 2: n=24, Mean(pg/ml): 645, Standard deviation: 39.99, CV(%): 6.2</li><li>• Sample 3: n=24, Mean(pg/ml): 1742, Standard deviation: 113.23, CV(%): 6.5</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  |



**ELISA**

**Image 1.** Human Elafin/PI3 PicoKine ELISA Kit standard curve