

Datasheet for ABIN1706085  
**NUCB2 ELISA Kit**



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## Overview

Quantity: 96 tests

Target: NUCB2

Binding Specificity: AA 25-106

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 Nesfatin-1

Brand: PicoKine™

Sample Type: Cell Culture Supernatant, Serum

Analytical Method: Quantitative

Detection Method: Colorimetric

Immunogen: Expression system for standard: E.coli  
Immunogen sequence: V25-L106

Specificity: Expression system for standard: E.coli  
Immunogen sequence: V25-L106

Cross-Reactivity (Details): There is no detectable cross-reactivity with other relevant proteins.

## Product Details

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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

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Target: NUCB2

Alternative Name: NUCB2 ([NUCB2 Products](#))

Background: Protein Function: Calcium-binding protein. May have a role in calcium homeostasis.  
Background: Nesfatin-1 is a naturally occurring protein molecule produced by the brains of mammals. It is responsible for regulating appetite and production of body fat. Nesfatin-1 is a metabolic polypeptide encoded in the N-terminal region of the protein precursor, Nucleobindin2(NUCB2). Recombinant human Nesfatin-1 is a 9.7 kDa protein containing 82 amino acid residues. Originally identified as a hypothalamic neuropeptide, Nesfatin-1 is also expressed in other areas of the brain, and in pancreatic islets of Langerhans, gastric endocrine cells and adipocytes. Nesfatin-1 plays a role in hunger and energy regulation in an independent manner.  
Synonyms: Nucleobindin-2,DNA-binding protein NEFA,Gastric cancer antigen Zg4,Prepronesfatin,Nesfatin-1,NUCB2,NEFA,  
Full Gene Name: Nucleobindin-2  
Cellular Localisation: Golgi apparatus . Membrane, Peripheral membrane protein . Cytoplasm . Secreted . Endoplasmic reticulum . Nucleus envelope . Golgi retention is mediated by its N-terminal region.

Gene ID: 4925

UniProt: [P80303](#)

## Application Details

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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: Belongs to the nucleobindin family.  
Tissue Specificity: Predominantly expressed in spleen, testis and normal stomach. .

## Application Details

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Plate:	Pre-coated
Protocol:	human Nesfatin-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Nesfatin-1 has been precoated onto 96-well plates. Standards(E.coli, V25-L106) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Nesfatin-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 human Nesfatin-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 human Nesfatin-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 human cell culture supernates or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Nesfatin-1 standard solution and each sample be measured in duplicate. Seal the plate with the cover and incubate at 37 °C for 90 min.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(pg/ml): 146, Standard deviation: 7.6, CV(%): 5.2</li><li>• Sample 2: n=16, Mean(pg/ml): 726, Standard deviation: 35.6, CV(%): 4.9</li><li>• Sample 3: n=16, Mean(pg/ml): 1252, Standard deviation: 68.86, CV(%): 5.5,</li><li>• Sample 1: n=24, Mean(pg/ml): 177, Standard deviation: 9.56, CV(%): 5.4</li><li>• Sample 2: n=24, Mean(pg/ml): 838, Standard deviation: 47.8, CV(%): 5.7</li><li>• Sample 3: n=24, Mean(pg/ml): 1527, Standard deviation: 96.2, CV(%): 6.3</li></ul>
Restrictions:	For Research Use only

## Handling

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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

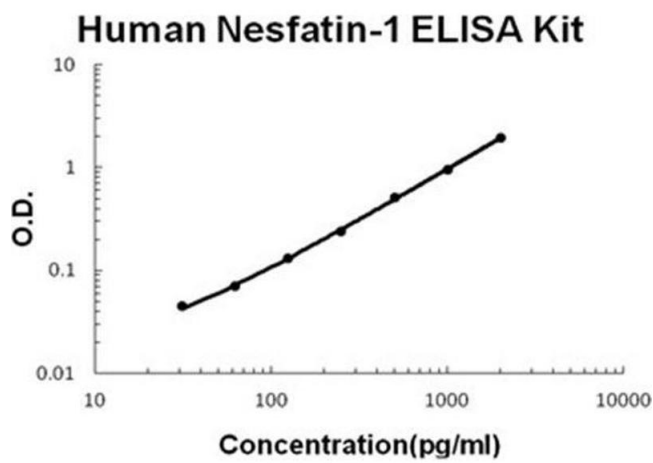
## Publications

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Product cited in:	Algul, Ozdenk, Ozcelik: "Variations in leptin, nesfatin-1 and irisin levels induced by aerobic
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exercise in young trained and untrained male subjects." in: **Biology of sport**, Vol. 34, Issue 4, pp. 339-344, (2018) ([PubMed](#)).

Çatl?, An?k, Küme, Çalan, Dünder, Böber, Abac?: "Serum nesfatin-1 and leptin levels in non-obese girls with premature thelarche." in: **Journal of endocrinological investigation**, Vol. 38, Issue 8, pp. 909-13, (2015) ([PubMed](#)).



#### ELISA

**Image 1.** Human Nesfatin-1 PicoKine ELISA Kit standard curve