Datasheet for ABIN1672864
# ANGPTL4 ELISA Kit

| 1 | Image |
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## Overview

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| Quantity: | 96 tests |
| Target: | ANGPTL4 |
| Binding Specificity: | AA 165-406 |
| Reactivity: | Human |
| Method Type: | Sandwich ELISA |
| Detection Range: | 625-40000 pg/mL |
| Minimum Detection Limit: | 625 pg/mL |
| Application: | ELISA |

## Product Details

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| Purpose: | Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human ANGPTL4 |
| Brand: | PicoKine™ |
| Sample Type: | Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA) |
| Analytical Method: | Quantitative |
| Detection Method: | Colorimetric |
| Immunogen: | Expression system for standard: NSO Immunogen sequence: L165-S406 |
| Specificity: | Expression system for standard: NSO Immunogen sequence: L165-S406 |
| Cross-Reactivity (Details): | There is no detectable cross-reactivity with other relevant proteins. |

## Product Details

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| Sensitivity: | <20pg/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: | ANGPTL4 |
| Alternative Name: | ANGPTL4 (ANGPTL4 Products) |
| Background: | Protein Function: Protein with hypoxia-induced expression in endothelial cells. May act as a regulator of angiogenesis and modulate tumorigenesis. Inhibits proliferation, migration, and tubule formation of endothelial cells and reduces vascular leakage. May exert a protective function on endothelial cells through an endocrine action. It is directly involved in regulating glucose homeostasis, lipid metabolism, and insulin sensitivity. In response to hypoxia, the unprocessed form of the protein accumulates in the subendothelial extracellular matrix (ECM). The matrix-associated and immobilized unprocessed form limits the formation of actin stress fibers and focal contacts in the adhering endothelial cells and inhibits their adhesion. It also decreases motility of endothelial cells and inhibits the sprouting and tube formation (By similarity). . |
| | Background: Angiopoietin-related protein 4(Angptl4) is a protein that in humans is encoded by the ANGPTL4 gene. This gene is a member of the angiopoietin/angiopoietin-like gene family and encodes a glycosylated, secreted protein with a fibrinogen C-terminal domain. This gene is induced under hypoxic conditions in endothelial cells and is the target of peroxisome proliferation activators. By radiation hybrid analysis, Angptl4 gene is mapped to 19p13.3. ANGPTL4 contributed to tumor growth and protected cells from anoikis, a form of programmed cell death induced when contact-dependent cells detach from the surrounding tissue matrix. Synonyms: Angiopoietin-related protein 4,Angiopoietin-like protein 4,Hepatic fibrinogen/angiopoietin-related protein,HFARP,ANGPTL4,ARP4, HFARP, PGAR,PP1158, PSEC0166, UNQ171/PRO197, Full Gene Name: Angiopoietin-related protein 4 Cellular Localisation: Secreted . Secreted, extracellular space, extracellular matrix . The unprocessed form interacts with the extracellular matrix. This may constitute a dynamic reservoir, a regulatory mechanism of the bioavailability of ANGPTL4 (By similarity).. |
| Gene ID: | 51129 |

## Target Details

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| UniProt: | Q9BY76 |
| Pathways: | Regulation of Lipid Metabolism by PPARalpha |

## 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: Contains 1 fibrinogen C-terminal domain. <br><br> Tissue Specificity: Expressed at high levels in the placenta, heart, liver, muscle, pancreas and lung but expressed poorly in the brain and kidney. . |
| Plate: | Pre-coated |
| Protocol: | human ANGPTL4 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for ANGPTL4 has been precoated onto 96-well plates. Standards(NSO, L165-S406) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ANGPTL4 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 ANGPTL4 amount of sample captured in plate. |
| Assay Procedure: | Aliquot 0.1 mL per well of the 40000pg/mL, 20000pg/mL, 10000pg/mL, 5000pg/mL, 2,500pg/mL, 1,250pg/mL, 625pg/mL human ANGPTL4 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 or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human ANGPTL4 standard solution and each sample be measured in duplicate. |
| Assay Precision: | • Sample 1: n=16, Mean(ng/ml): 6.1, Standard deviation: 0.35, CV(%): 5.7 <br> • Sample 2: n=16, Mean(ng/ml): 12.7, Standard deviation: 0.75, CV(%): 5.9 <br> • Sample 3: n=16, Mean(ng/ml): 25.3, Standard deviation: 1.54, CV(%): 6.1, <br> • Sample 1: n=24, Mean(ng/ml): 6.7, Standard deviation: 0.52, CV(%): 7.8 <br> • Sample 2: n=24, Mean(ng/ml): 13.8, Standard deviation: 1.12, CV(%): 8.1 <br> • Sample 3: n=24, Mean(ng/ml): 27.5, Standard deviation: 2.28, CV(%): 8.3 |
| 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 |

## Images



**ELISA**

**Image 1.** Human ANGPTL4 PicoKine ELISA Kit standard curve