Datasheet for ABIN1889348

Azurocidin ELISA Kit

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Overview

Quantity:	96 tests
Target:	Azurocidin (AZU1)
Binding Specificity:	AA 27-248
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Azurocidin
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: I27-P248
Specificity:	Expression system for standard: NSO Immunogen sequence: I27-P248
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:	Azurocidin (AZU1)
Alternative Name:	AZU1 (AZU1 Products)
Background:	Protein Function: This is a neutrophil granule-derived antibacterial and monocyte- and fibroblast-specific chemotactic glycoprotein. Binds heparin. The cytotoxic action is limited to many species of Gram- negative bacteria, this specificity may be explained by a strong affinity of the very basic N-terminal half for the negatively charged lipopolysaccharides that are unique to the Gram-negative bacterial outer envelope. It may play a role in mediating recruitment of monocytes in the second wave of inflammation. Has antibacterial activity against the Gram-nagative bacterium P.aeruginosa, this activity is inhibited by LPS from P.aeruginosa. Acting alone, it does not have antimicrobial activity against the Gram-negative bacteria A.actinomycetemcomitans ATCC 29532, A.actinomycetemcomitans NCTC 9709, A.actinomycetemcomitans FDC-Y4, H.aphrophilus ATCC 13252, E.corrodens ATCC 23834, C.sputigena ATCC 33123, Capnocytophaga sp ATCC 33124, Capnocytophaga sp ATCC 27872 or E.coli ML-35. Has antibacterial activity against C.sputigena ATCC 33123 when acting synergistically with either elastase or cathepsin G. . Background: Azurocidin, also known as cationic antimicrobial protein CAP37 or heparin-binding protein (HBP), is a protein that in humans is encoded by the AZU1 gene. This encoded protein is a member of the serine protease gene family, but it is not a serine proteinase, because the active site serine and histidine residues are replaced. Azurocidin is mapped to 19p13.3. The protein encoded by this gene is an azurophil granule antibiotic protein, with antibacterial activity. It is also an important multifunctional inflammatory mediator. In addition to it, Azurocidin is also a specific chemoattractant for monocytes. It lacks the chemotactic activity for neutrophils and lymphocytes, and this gene is probably responsible for the wave of monocytes that follows the initial wave of PMNs typical of the inflammatory response. Synonyms: Azurocidin,Cationic antimicrobial protein CAP37,Heparin-binding protein,HBP,AZU1, Full Gene Name: Azurocidin Cellular Localisation: Cytoplasmic granule. Cytoplasmic granules of neutrophils.

Target Details

Gene ID:	566
UniProt:	P20160

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: Belongs to the peptidase S1 family. Elastase subfamily.
Plate:	Pre-coated
Protocol:	human Azurocidin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Azurocidin has been precoated onto 96-well plates. Standards(NSO, I27-P248) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Azurocidin 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 Azurocidin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human Azurocidin 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 Azurocidin standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 675, Standard deviation: 28.35, CV(%): 4.2 • Sample 2: n=16, Mean(pg/ml): 1847, Standard deviation: 94.2, CV(%): 5.1 • Sample 3: n=16, Mean(pg/ml): 2816, Standard deviation: 149.2, CV(%): 5.3, • Sample 1: n=24, Mean(pg/ml): 873, Standard deviation: 48.9, CV(%): 5.6 • Sample 2: n=24, Mean(pg/ml): 2020, Standard deviation: 129.3, CV(%): 6.4 • Sample 3: n=24, Mean(pg/ml): 3174, Standard deviation: 238.1, CV(%): 7.5
Restrictions:	For Research Use only

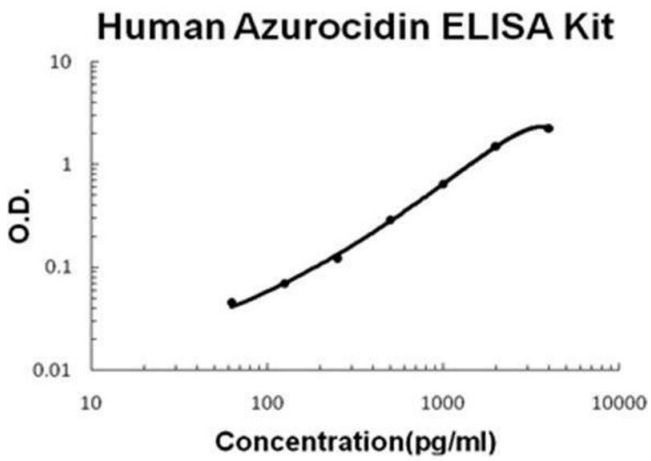
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.

Handling

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 Azurocidin PicoKine ELISA Kit standard curve