Datasheet for ABIN1889408

FCN1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	FCN1
Binding Specificity:	AA 30-326
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.78-50 ng/mL
Minimum Detection Limit:	0.78 ng/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Ficolin-1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A30-A326
Specificity:	Expression system for standard: NSO Immunogen sequence: A30-A326
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

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

Target:	FCN1
Alternative Name:	FCN1 (FCN1 Products)
Background:	Protein Function: Extracellular lectin functioning as a pattern- recognition receptor in innate immunity. Binds the sugar moieties of pathogen-associated molecular patterns (PAMPs) displayed on microbes and activates the lectin pathway of the complement system. May also activate monocytes through a G protein-coupled receptor, FFAR2, inducing the secretion of interleukin-8/IL-8 (PubMed:21037097). Binds preferentially to 9-O-acetylated 2-6- linked sialic acid derivatives and to various glycans containing sialic acid engaged in a 2-3 linkage. . Background: Ficolin-1, and also commonly termed M-ficolin is a protein that in humans is encoded by the FCN1 gene. It is mapped to 9q34.3. The ficolin family of proteins are characterized by the presence of a leader peptide, a short N-terminal segment, followed by a collagen-like region, and a C-terminal fibrinogen-like domain. Ficolins have a crucial role in defense against pneumococcal infection through the lectin complement pathway. Ficolin 1 is predominantly expressed in the peripheral blood leukocytes, and has been postulated to function as a plasma protein with elastin-binding activity. Synonyms: Ficolin-1,Collagen/fibrinogen domain-containing protein 1,Ficolin-A,Ficolin-alpha,M-ficolin,FCN1,FCNM, Full Gene Name: Ficolin-1 Cellular Localisation: Secreted. Cell membrane, Peripheral membrane protein, Extracellular side. Found on the monocyte and granulocyte surface.
Gene ID:	2219
UniProt:	O00602
Pathways:	Complement System

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well

Application Details

	assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the ficolin lectin family. Tissue Specificity: Peripheral blood leukocytes, monocytes and granulocytes. Also detected in spleen, lung, and thymus, may be due to the presence of tissue macrophages or trapped blood in these tissues. Not detected on lymphocytes. .
Plate:	Pre-coated
Protocol:	human Ficolin-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Ficolin-1 has been precoated onto 96-well plates. Standards(NSO, A30-A326) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Ficolin-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 Ficolin-1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 50 ng/mL, 25 ng/mL, 12.5 ng/mL, 6.25 ng/mL, 3.12 ng/mL, 1.56 ng/mL, 0.78 ng/mL human Ficolin-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, serum or plasma(heparin) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Ficolin-1 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 4.83, Standard deviation: 0.188, CV(%): 3.9 • Sample 2: n=16, Mean(ng/ml): 13.2, Standard deviation: 0.581, CV(%): 4.4 • Sample 3: n=16, Mean(ng/ml): 25.1, Standard deviation: 1.431, CV(%): 5.7, • Sample 1: n=24, Mean(ng/ml): 5.24, Standard deviation: 0.393, CV(%): 7.5 • Sample 2: n=24, Mean(ng/ml): 12.9, Standard deviation: 0.890, CV(%): 6.9 • Sample 3: n=24, Mean(ng/ml): 25.9, Standard deviation: 1.89, CV(%): 7.3
Restrictions:	For Research Use only

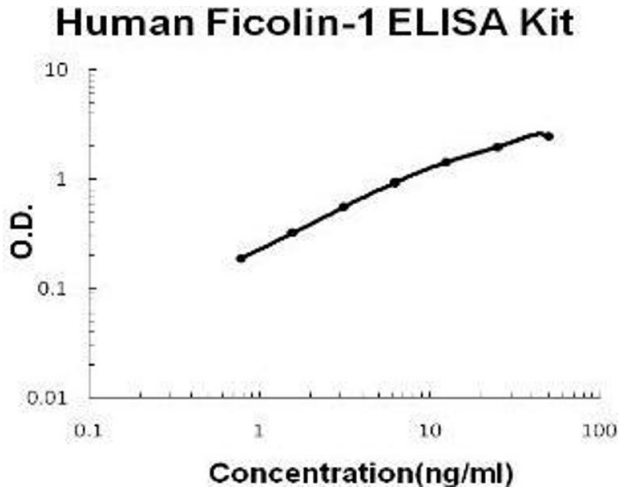
Handling

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

Handling

Expiry Date:	12 months

Images



ELISA

Image 1. Human Ficolin-1 PicoKine ELISA Kit standard curve