

Datasheet for ABIN921096

Fetuin A ELISA Kit[Go to Product page](#)**1** Image**3** Publications

Overview

Quantity:	96 tests
Target:	Fetuin A (AHSG)
Binding Specificity:	AA 19-367
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	312-20000 pg/mL
Minimum Detection Limit:	312 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Fetuin A
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: A19-V367
Specificity:	Expression system for standard: NSO Immunogen sequence: A19-V367
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:	Fetuin A (AHSG)
Alternative Name:	AHSG (AHSG Products)
Background:	<p>Protein Function: Promotes endocytosis, possesses opsonic properties and influences the mineral phase of bone. Shows affinity for calcium and barium ions.</p> <p>Background: Alpha2-HS glycoprotein(AHSG), also known as fetuin-A, is a plasma protein displaying high-affinity interaction with calcium phosphate, by which ectopic vascular calcification is prevented. The AHSG polymorphism is attributable to the hereditary variation of AHSG and phosphate serum levels, which may affect skeletal development and chronic disorders such as vascular calcification.¹Human plasma protein alpha 2-HS-glycoprotein(AHSG) is composed of two polypeptide chains, A and B, encoded by a single mRNA. Southern blot analysis of mouse x human somatic cell hybrids has mapped the AHSG gene to human chromosome 3 in the region 3q21----qter. Using a recombinant plasmid containing a 1,538 bp insert spanning the entire AHSG coding region, AHSG was localized to chromosomal bands 3q27----q29 by in situ hybridization.²</p> <p>Synonyms: Alpha-2-HS-glycoprotein,Alpha-2-Z-globulin,Ba-alpha-2-glycoprotein,Fetuin-A,Alpha-2-HS-glycoprotein chain A,Alpha-2-HS-glycoprotein chain B,AHSG,FETUA,PRO2743,</p> <p>Full Gene Name: Alpha-2-HS-glycoprotein</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	197
UniProt:	P02765

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 fetuin family. Tissue Specificity: Synthesized in liver and selectively concentrated in bone matrix. Secreted in

Application Details

plasma. It is also found in dentin in much higher quantities than other plasma proteins.

Plate: Pre-coated

Protocol: human Fetuin A ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Fetuin A has been precoated onto 96-well plates. Standards(NSO, A19-V367) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Fetuin A 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 Fetuin A amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 20000pg/mL, 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL human Fetuin A 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 Fetuin A standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(ng/ml): 2.17, Standard deviation: 0.089, CV(%): 4.1
- Sample 2: n=16, Mean(ng/ml): 8.32, Standard deviation: 0.441, CV(%): 5.3
- Sample 3: n=16, Mean(ng/ml): 12.55, Standard deviation: 0.602, CV(%): 4.8,
- Sample 1: n=24, Mean(ng/ml): 2.39, Standard deviation: 0.129, CV(%): 5.4
- Sample 2: n=24, Mean(ng/ml): 8.75, Standard deviation: 0.543, CV(%): 6.2
- Sample 3: n=24, Mean(ng/ml): 13.64, Standard deviation: 0.777, CV(%): 5.7

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

Publications

Product cited in: He, Le, Frediani, Winterberg, Jin, Liverman, Hernandez, Cleeton, Vos: "Cardiometabolic risks vary

by weight status in pediatric kidney and liver transplant recipients: A cross-sectional, single-center study in the USA." in: **Pediatric transplantation**, Vol. 21, Issue 6, (2018) ([PubMed](#)).

Sindhu, Akhter, Shenouda, Wilson, Ahmad: "Plasma fetuin-A/ α 2-HS-glycoprotein correlates negatively with inflammatory cytokines, chemokines and activation biomarkers in individuals with type-2 diabetes." in: **BMC immunology**, Vol. 17, Issue 1, pp. 33, (2016) ([PubMed](#)).

Kocyigit, Unal, Elcik, Korkar, Sen, Yasan, Eroglu, Sipahioglu, Tokgoz, Oymak: "Association Between Cardiac Valvular Calcification and Serum Fetuin-A Levels in Renal Transplant Recipients." in: **Transplantation proceedings**, Vol. 47, Issue 5, pp. 1398-401, (2015) ([PubMed](#)).

Images

