

Datasheet for ABIN2859324

SHBG ELISA Kit**1** Image[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	SHBG
Binding Specificity:	AA 30-402
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.031-2 nM/L
Minimum Detection Limit:	0.031 nM/L
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human SHBG
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: L30-H402
Specificity:	Expression system for standard: NSO Immunogen sequence: L30-H402
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity: <0.001nmol/L

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: SHBG

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

Background: Protein Function: Functions as an androgen transport protein, but may also be involved in receptor mediated processes. Each dimer binds one molecule of steroid. Specific for 5-alpha-dihydrotestosterone, testosterone, and 17-beta-estradiol. Regulates the plasma metabolic clearance rate of steroid hormones by controlling their plasma concentration.

Background: Sex hormone-binding globulin (SHBG) or sex steroid-binding globulin (SSBG) is a glycoprotein that binds to the two sex hormones: androgen and estrogen. The gene for SHBG is located on chromosome 17 on the short arm between the bands 17p12-p13. And this gene encodes a steroid binding protein that was first described as a plasma protein secreted by the liver but is now thought to participate in the regulation of steroid responses. The encoded protein transports androgens and estrogens in the blood, binding each steroid molecule as a dimer formed from identical or nearly identical monomers. Polymorphisms in this gene have been associated with polycystic ovary syndrome and type 2 diabetes mellitus. Alternative splicing results in multiple transcript variants.

Synonyms: Sex hormone-binding globulin,SHBG,Sex steroid-binding protein,SBP,Testis-specific androgen-binding protein,ABP,Testosterone-estradiol-binding globulin,TeBG,Testosterone-estrogen-binding globulin,SHBG,

Full Gene Name: Sex hormone-binding globulin

Cellular Localisation: Secreted . In testis, it is synthesized by the Sertoli cells, secreted into the lumen of the seminiferous tubule and transported to the epididymis..

Gene ID: 6462

UniProt: [P04278](#)

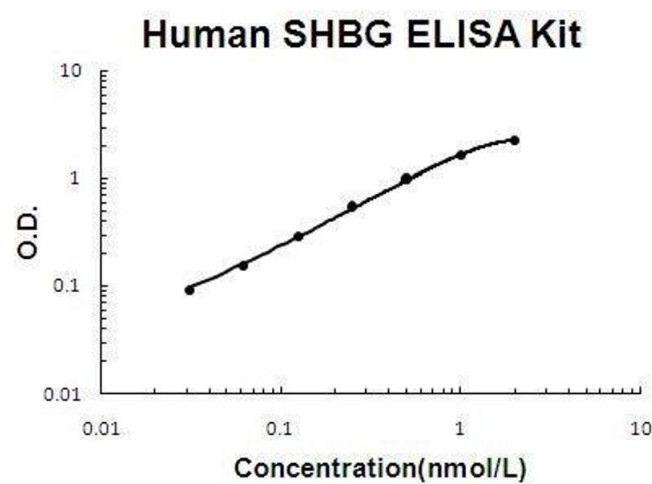
Pathways: [Hormone Transport](#)

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: Contains 2 laminin G-like domains. Tissue Specificity: Isoform 1 and isoform 2 are present in liver and testis.
Plate:	Pre-coated
Protocol:	human SHBG ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for SHBG has been precoated onto 96-well plates. Standards(NSO, L30-H402) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for SHBG 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 SHBG amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2nmol/L, 1nmol/L, 0.5nmol/L, 0.25nmol/L, 0.125nmol/L, 0.062nmol/L, 0.031nmol/L human SHBG 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 and plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human SHBG standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(nmol/L): 0.19, Standard deviation: 0.009, CV(%): 4.5• Sample 2: n=16, Mean(nmol/L): 0.76, Standard deviation: 0.043, CV(%): 5.6• Sample 3: n=16, Mean(nmol/L): 1.4, Standard deviation: 0.095, CV(%): 6.8,• Sample 1: n=24, Mean(nmol/L): 0.24, Standard deviation: 0.014, CV(%): 5.7• Sample 2: n=24, Mean(nmol/L): 0.85, Standard deviation: 0.051, CV(%): 6• Sample 3: n=24, Mean(nmol/L): 1.9, Standard deviation: 0.137, CV(%):7.2
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



ELISA

Image 1. Human SHBG PicoKine ELISA Kit standard curve