

Product datasheet

Human Sex Hormone Binding Globulin/SHBG ELISA Kit ab213824

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Overview

Product name Human Sex Hormone Binding Globulin/SHBG ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
1	16	0.19nmol/L	0.009	4.5%
2	16	0.76nmol/L	0.043	5.6%
3	16	1.4nmol/L	0.095	6.8%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	0.24nmol/L	0.014	5.7%
2	24	0.85nmol/L	0.051	6%
3	24	1.9nmol/L	0.137	7.2%

Sample type Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma, Tissue Homogenate

Assay type Sandwich (quantitative)

Sensitivity < 0.001 nmol/L

Range 0.031 nmol/L - 2 nmol/L

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview The Human Sex Hormone Binding Globulin/SHBG Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213824) is designed for the quantitative measurement of Human Sex Hormone Binding Globulin/SHBG in cell culture supernatants, cell lysates, tissue homogenates, serum and plasma

(heparin, EDTA).

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A monoclonal antibody from mouse specific for Sex Hormone Binding Globulin/SHBG has been pre-coated onto 96-well plates. Standards (Expression system for standard: NSO; Immunogen sequence: L30-H402) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Sex Hormone Binding Globulin/SHBG is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB is used to visualize HRP enzymatic reaction. TMB is 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 Sex Hormone Binding Globulin/SHBG amount of sample captured in plate.

Notes 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 Sex Hormone Binding Globulin/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.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-Human SHBG coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 130µl
Biotinylated anti-Human SHBG antibody		1 x 130µl
Lyophilized recombinant Human SHBG standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml

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.

Tissue specificity

Isoform 1 and isoform 2 are present in liver and testis.

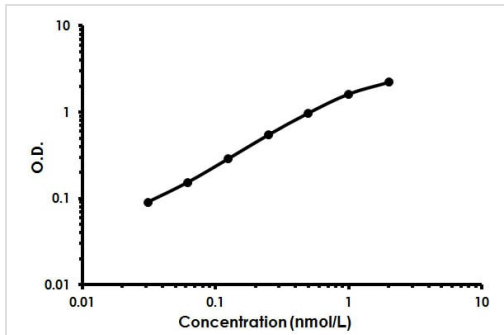
Sequence similarities

Contains 2 laminin G-like domains.

Cellular localization

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

Images



Human Sex Hormone Binding Globulin/SHBG ELISA Kit (ab213824) Standard Curve.

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