

# SHBG Antibody

Catalog # ASC11839

## Specification

# SHBG Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW WB, IF, E <u>P04278</u> <u>NP\_001031</u>, <u>6462</u> Human, Mouse, Rat Rabbit Polyclonal IgG Predicted: 25, 26, 31, 32, 38, 44 kDa

Application Notes

Observed: 35 kDa KDa SHBG antibody can be used for detection of SHBG by Western blot at 1 - 2  $\mu$ g/ml. For immunofluorescence start at 20  $\mu$ g/mL.

# SHBG Antibody - Additional Information

Gene ID6462Target/SpecificitySHBG antibody was raised against a 16 amino acid peptide near the center of humanSHBG.<br><br>sHBG.<br><br>br>The immunogen is located within amino acids 220 - 270 of SHBG.

**Reconstitution & Storage** 

Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

**Precautions** SHBG Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# SHBG Antibody - Protein Information

Name SHBG (<u>HGNC:10839</u>)

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.

#### **Cellular Location**

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

**Tissue Location** 



Isoform 1 and isoform 2 are present in liver and testis

## SHBG Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## SHBG Antibody - Images



Western blot analysis of SHBG in human liver tissue lysate with SHBG antibody at (A) 1 and (B) 2  $\mu$ g/ml.



Immunofluorescence of SHBG in mouse liver tissue with SHBG antibody at 20  $\mu$ g/ml.



# SHBG Antibody - Background

SHBG is a steroid binding protein that was first described as a plasma protein secreted by the liver and is thought to participate in the regulation of steroid responses. SHBG transports androgens and estrogens in the blood, binding each steroid molecule as a dimer formed from identical or nearly identical monomers (1). Low plasma SHBG levels are associated with obesity, abdominal adiposity, metabolic syndrome, and predict the development of type 2 diabetes (2,3). Polymorphisms in this gene have been associated with polycystic ovary syndrome and type 2 diabetes mellitus (4).

### SHBG Antibody - References

Siiteri PK, Murai JT, Hammond GL, et al. The serum transport of steroid hormones. Recent Prog. Horm. Res. 1982; 38:457-510.

Li C, Ford ES, Li B, et al. Association of testosterone and sex hormone-binding globulin with metabolic syndrome and insulin resistance in men. Diabetes Care 2010; 33:1618-24. Ding EL, Song Y, Manson JE, et al. Sex hormone-binding globulin and risk of type 2 diabetes in women and men. N. Engl. J. Med. 2009; 361:1152-63.

Hacihanefioglu B, Aybey B, Hakan Ozon Y, et al. Association of anthropometric, androgenic and insulin-related features with polymorphisms in exon 8 of SHBG gene in women with polycystic ovary syndrome. Gynecol. Endocrinol. 2013; 29:361-4.