

SHBG (C-20): sc-32468

BACKGROUND

Sex hormone-binding globulin (SHBG) precursor is a secreted homodimer that binds steroid hormones. SHBG, also known as testis-specific androgen-binding protein or testosterone-estradiol binding globulin (TeBG), functions as an androgen transport protein and is involved in receptor mediated processes. It is specific for 7- β -estradiol and 5- α -dihydrotestosterone and testosterone. By controlling the plasma concentration of steroid hormones, SHBG regulates the plasma metabolic clearance rate of the hormones. Isoforms 1 and 2 of the protein are detected in liver and testis. In testis SHBG is synthesized by the Sertoli cells, secreted into the seminiferous tubule and then transported to the epididymis.

REFERENCES

1. Power, S.G., et al. 1992. Molecular analyses of a human sex hormone-binding globulin variant: evidence for an additional carbohydrate chain. *J. Clin. Endocrinol. Metab.* 75: 1066-1070.
2. Hardy, D.O., et al. 1995. Molecular characterization of a genetic variant of the steroid hormone-binding globulin gene in heterozygous subjects. *J. Clin. Endocrinol. Metab.* 80: 1253-1256.
3. Cargill, M., et al. 1999. Characterization of single-nucleotide polymorphisms in coding regions of human genes. *Nat. Genet.* 22: 231-238.
4. Grishkovskaya, I., et al. 2000. Crystal structure of human sex hormone-binding globulin: steroid transport by a laminin G-like domain. *EMBO. J.* 19: 504-512.
5. Fejes, I., et al. 2005. Is semen quality affected by male body fat distribution? *Andrologia* 37: 155-159.
6. Joffe, H.V., et al. 2005. Sex hormone-binding globulin and serum testosterone are inversely associated with c-reactive protein levels in post-menopausal women at high risk for cardiovascular disease. *Ann. Epidemiol.* 16: 105-112.

CHROMOSOMAL LOCATION

Genetic locus: SHBG (human) mapping to 17p13.1; Shbg (mouse) mapping to 11 B3.

SOURCE

SHBG (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SHBG of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32468 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SHBG (C-20) is recommended for detection of SHBG of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SHBG siRNA (h): sc-44847, SHBG siRNA (m): sc-44848, SHBG shRNA Plasmid (h): sc-44847-SH, SHBG shRNA Plasmid (m): sc-44848-SH, SHBG shRNA (h) Lentiviral Particles: sc-44847-V and SHBG shRNA (m) Lentiviral Particles: sc-44848-V.

Molecular Weight of SHBG: 45 kDa.

Positive Controls: mouse testis extract: sc-2405.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **SHBG (C-2): sc-377032** or **SHBG (G-4): sc-377031**, our highly recommended monoclonal alternatives to SHBG (C-20).