

SHBG (H-300): sc-32890

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

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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 (H-300) is a rabbit polyclonal antibody raised against amino acids 103-402 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.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

SHBG (H-300) is recommended for detection of SHBG isoforms 1 and 2 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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


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Try **SHBG (C-2): sc-377032** or **SHBG (G-4): sc-377031**, our highly recommended monoclonal alternatives to SHBG (H-300).