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**Human Sex Hormone Binding Globulin (SHBG) or Testosterone Binding Globulin Protein**

Cat. # SHBG15-N-100

Purified **Human serum SHBG** protein

**SIZE:** 100 ug

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SHBG is a protein of mol wt 90 kDa (402 aa) containing two subunits. SHBG transports the sex steroids testosterone, DHT and estradiol in the blood. Serum levels are increased during pregnancy, in women taking estrogens, and in men over the age of 50. Levels are reduced after menopause and in response to treatment with androgens or corticosteroids. Diagnostic uses include polycystic ovary disease and tests for liver and thyroid 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.

[SUBUNIT] Homodimer.

[SUBCELLULAR LOCATION] Secreted (By similarity). Note=In testis, it is synthesized by the Sertoli cells, secreted into the lumen of the seminiferous tubule and transported to the epididymis (By similarity).

[ALTERNATIVE PRODUCTS] Event=Alternative splicing; Named isoforms=2; Comment=Additional isoforms seem to exist; Name=1; Synonyms=SHBG, SHBGr-1; Isold=P04278-1; Sequence=Displayed; Name=2; Synonyms=Sex hormone binding globulin-gene-related protein (SHBGgrp), SHBGr-2; Isold=P04278-2; Sequence=VSP\_006090, VSP\_006091, VSP\_006092; Note=Incomplete sequence.

[TISSUE SPECIFICITY] Isoforms 1 and 2 are present in liver and testis.

[SIMILARITY] Contains 2 laminin G-like domains

**Source of Antigen**

Normal human serum/plasma. Starting material donor tested and certified negative for HIV I & II antibodies, Hepatitis B surface antigen, and Hepatitis C antibodies. Human SHBG was purified by chromatographic means (purity >95% SDS-PAGE, mol wt ~45 Kda reducing conditions). It is supplied in PBS, pH 7.4 in liquid (1 mg/ml) or in powder form. **Reconstitute** powder in PBS or other buffers at 1 mg/ml or other desired concentrations. Store powder at 4oC and reconstituted solution at -20oC. Avoid repeated freeze and thaw.

**Stability:** 6-12 months at -20oC or below.

**Recommended Usage**

Purified SHBG is suitable for ELISA, western or other application requiring SHBG.

**General References:** Hammond GI (1987) FEBS Lett. 215, 100-104; Hammond GI (1986) J. Steroid Biochem. 24, 815-824; Powers SG (1992) J. Clin. Endocrinol. Metab. 75 (4), 1066-1070; Grishkovskaya, I (2002) J. Biol. Chem. 277 (35), 32086-32093;

\*This product is for In vitro research use only.

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Human Albumin, Transferrin, IgG, CRP, IgG, IgA, IgM, and IgE ELISA kits

SHBG15-N-100

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