

# Recombinant Human Sex Hormone binding globulin Protein, His tagged

Cat. No. SHBG-15H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Human sex hormone-binding globulin (SHBG) expressed in HEK293 cells with His-tag.

**Species** Human

**Source** HEK293

**ProteinLength** 1-402 aa

**Description** Native sex hormone-binding globulin (SHBG) is a homodimeric glycoprotein of approximately 90 kDa, with each monomer comprising 373 amino acids, two intramolecular disulfide bonds, and glycosylation sites including two biantennary N-linked and one O-linked oligosaccharide. Its serum concentration is influenced not only by androgens and estrogens but also by thyroid hormones and various metabolic factors. Abnormal SHBG levels are associated with a range of conditions, including hyper- and hypoandrogenism, thyroid and pituitary disorders, liver disease, and hormone-related cancers such as breast and prostate cancer.

**Form** Liquid in DPBS.

**Molecular Mass** Expected Molecular Weight: 48.23 kDa Observed Molecular Weight: 50.0 kDa

**Storage** Short Term Storage: -80 centigrade Long Term Storage: -80 centigrade Avoid multiple freeze-thaw cycles, Can be frozen, but avoid multiple freeze-thaw cycles.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

**Concentration** 0.13 mg/mL

**Reference**

1. Avvakumov GV, Grishkovskaya I, Muller YA, Hammond GL.(2001) Resolution of the human sex hormone-binding globulin dimer interface and evidence for two steroid-binding sites per homodimer. J Biol Chem.;276(37):34453-7. doi: 10.1074/jbc.M106274200. Epub 2001 Jul 16. PMID: 11457864. 2. Thaler, M.A., Seifert-Klauss, V., & Lupp, P.B. (2015). The biomarker sex hormone-binding globulin – From established applications to emerging trends in clinical medicine. Best Practice & Research Clinical Endocrinology & Metabolism, 29(5), 749–760. 3. Adaway J, Keevil B, Miller A, Monaghan PJ, Merrett N, Owen L. Ramifications of variability in sex hormone-binding globulin measurement by different immunoassays on the calculation of free testosterone. Annals of Clinical Biochemistry. 2019;57(1):88-94.

## GENE INFORMATION

**Gene Name** SHBG sex hormone-binding globulin [ Homo sapiens ]

**Official Symbol** SHBG

**Synonyms** SHBG; sex hormone-binding globulin; ABP; androgen binding protein; MGC126834; MGC138391; TEBG; sex steroid-binding protein; testosterone-binding beta-globulin; testosterone-estrogen-binding globulin; testosterone-estradiol-binding globulin; testis-specific androgen-binding protein; SBP;

**Gene ID** 6462

**mRNA Refseq** NM\_001040

**Protein Refseq** NP\_001031

**MIM** 182205

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UniProt ID

P04278

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