

# Active Sex Hormone Binding Globulin (SHBG) Instruction Manual

## SBPA123Hu61

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 97%

**Isoelectric Point**

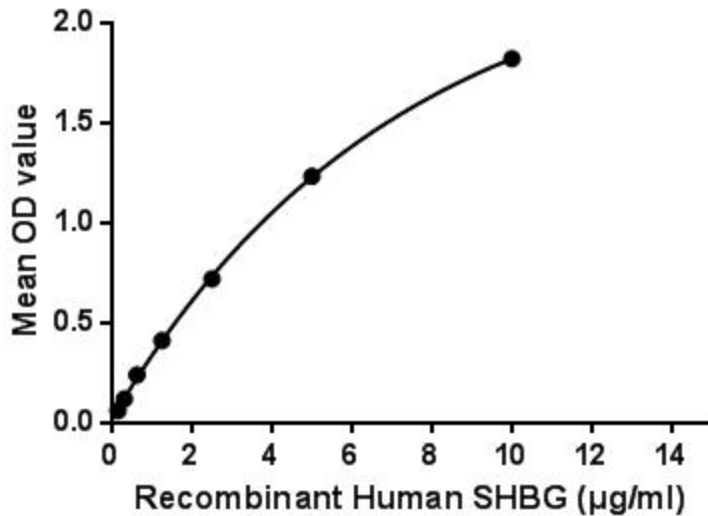
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**Applications**

Cell culture; Activity Assays.

### ACTIVITY TEST

RPVLPQTSAH DPPAVHLSNG  
PGQEPIAVMT FDLTKITKTS SSFEVRTWDP EGVIFYGDTN PKDDWFMLGL  
RDGRPEIQLH NHWAQLTVGA GPRLDDGRWH QVEVKMEGDS VLLEVDGEEV  
LRLRQVSGPL TSKRHPIMRI ALGGLLPAS NLRLPLVPAL DGCLRRDSWL  
DKQAEISASA PTLRSCDVE SNPGIFLPPG TQAEFNLRDI PQPHAEPWAF  
SLDLGLKQAA GSGHLLALGT PENPSWLSLH LQDQKVVLS GSGPGLDLPL  
VLGLPLQLKL SMSRVVLSQG SKMKALALPP LGLAPLLNLW AKPQGRFLG  
ALPGEDSSTS FCLNGLWAQG QRLDVDQALN RSHEIWITHSC PQSPGNGTDA  
S



**Figure 1. The binding activity of SHBG with Testo.**

Sex hormone-binding globulin (SHBG) or sex steroid-binding globulin (SSBG) is a glycoprotein, a molecule that consists of a carbohydrate plus a protein, and is produced mainly in your liver. It binds to three sex hormones found in both men and women: estrogen, dihydrotestosterone (DHT) and testosterone. Its job is to transport these hormones throughout your blood to other tissues in your body. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human SHBG and bsa-conjugated testosterone (Testo). Briefly, biotin-linked recombinant human SHBG were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to bsa-conjugated Testo-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with HRP conjugate for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µl stop solution to the wells and read at 450nm immediately. The binding activity of SHBG and Testo was shown in Figure 1, and this effect was in a dose dependent manner.

## USAGE

Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## Image

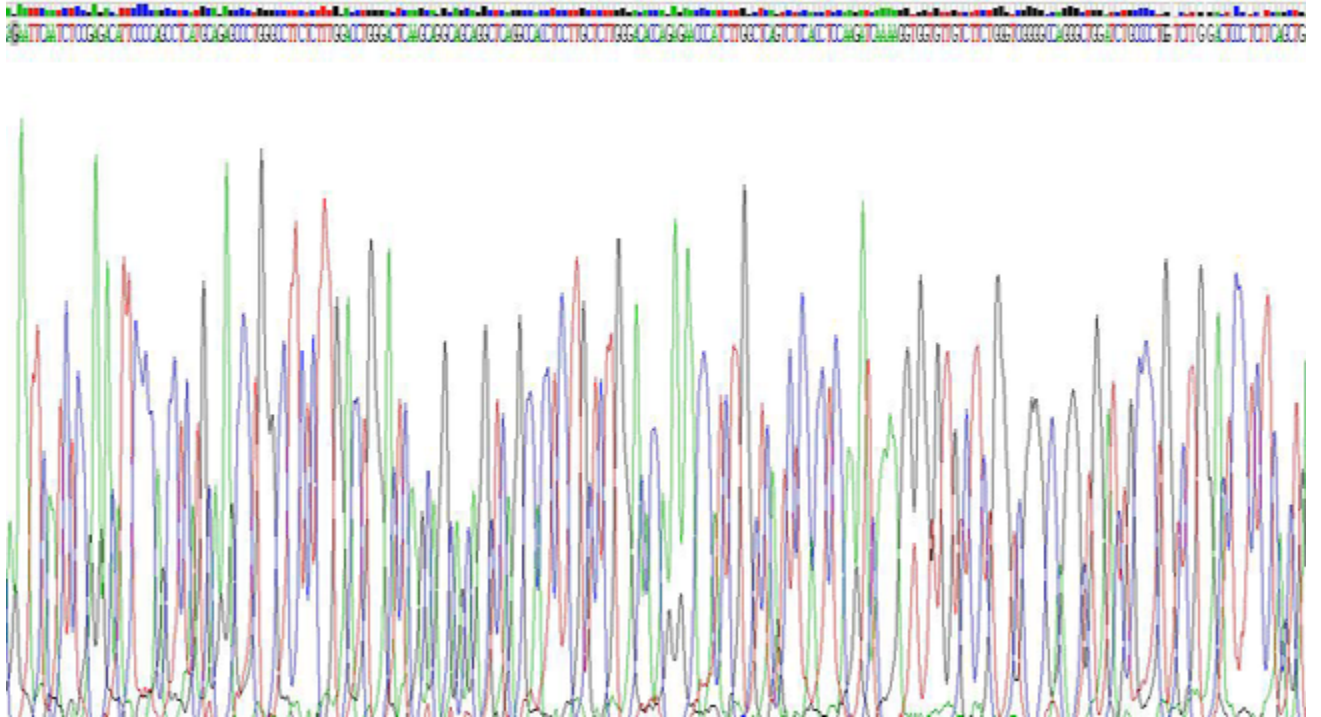


Figure. SDS-PAGE

## **[IMPORTANT NOTE]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.