

**APA396Hu61 50µg**  
**Active Sex Hormone Binding Globulin (SHBG)**  
**Organism Species: *Homo sapiens (Human)***  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Arg31~Ser401

**Tags:** N-terminal His-tag

**Purity:** >99%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** 10mM PBS, pH7.6, containing 5% trehalose.

**Applications:** Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 6.2

**Predicted Molecular Mass:** 42.0kDa

**Accurate Molecular Mass:** 50kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in 10mM PBS (pH7.6) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** 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.

## [ SEQUENCE ]

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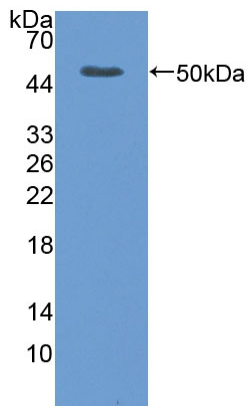
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DKQAEISASA PTSLRSCDVE SNPGIFLPPG TQAEFNLRDI PQPHAEPWAF
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VLGLPLQLKL SMSRVVLSQG SKMKALALPP LGLAPLLNLW AKPQGRFLG
ALPGEDSSTS FCLNGLWAQG QRLDVDQALN RSHEIWITHSC PQSPGNGTDA
S
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## [ ACTIVITY ]

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 100 $\mu$ l were then transferred to bsa-conjugated Testo-coated microtiter wells and incubated for 1h at 37 $^{\circ}$ 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 $^{\circ}$ C. Finally, add 50 $\mu$ l 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.



**Sample: Active recombinant SHBG, Human**



**Figure 3. Western Blot**

**Sample: Recombinant SHBG, Human;**

**Antibody: Rabbit Anti- Human SHBG Ab (PAA396Hu06)**

**[ IMPORTANT NOTE ]**

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