

Product datasheet for RC228307

Sex Hormone Binding Globulin (SHBG) (NM_001146279) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sex Hormone Binding Globulin (SHBG) (NM_001146279) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sex Hormone Binding Globulin
Synonyms:	ABP; SBP; TEBG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC228307 representing NM_001146279 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGAGAGCAGAGGCCACTGGCTACCTCGCGCCTGCTGCTGTTGCTGCTGTTGCTACTACTGCGTCACA
CCCGCCAGGGATGGGCCCTGAGACCTGTTCTCCCCACCCAGAGTGCCACGACCCCGGGTGTCCACCT
CAGCAATGGCCAGGACAAGAGCCTATCGCTGTCATGACCTTTGACCTACCAAGATCACAAAACTCC
TCCTCCTTTGAGTTTGAACCTGGGACCCAGAGGGAGTGATTTTTATGGGGATACCAACCTAAGGATG
ACTGGTTTATGCTGGGACTTCGAGACGGCAGGCCTGAGATCCAATGCACAATCACTGGGCCAGCTTAC
GGTGGGTGCTGGACCACGGCTGGATGATGGGAGATGGCACCAGGTGGAAGTCAAGATGGAGGGGGACTCT
GTGCTGCTGGAGGTGGATGGGGAGGAGGTGCTGCGCCTGAGACAGGTCTCTGGGCCCTGACCAGCAAAC
GCCATCCCATCATGAGGATTGCGCTTGGGGGGTCTCTTCCCCGCTTCCAACCTTCGGTTGCCGGCCGA
GATCTCAGCATCTGCCCCACTAGCCTCAGAAGCTGTGATGTAGAATCAAATCCCGGGATATTTCTCCCT
CCAGGGACTCAGGCAGAATTCAATCTCCGAGACATCCCCAGCCTCATGCAGAGCCCTGGGCCTTCTCTT
TGGACCTGGGACTCAAGCAGGCAGCAGGCTCAGGCCACCTCCTTGCTCTTGGGACACCAGAGAACCATC
CCCCTGGTCTTGGGACTCCCTTTCAGCTGAAGCTGAGTATGTCCAGGGTGGTCTTGAGCCAAGGGTCTGA
AGATGAAGGCCCTTGCCCTGCCTCCCTTAGGCCTGGCTCCCTCCTTAACCTCTGGGCCAAGCCTCAAGG
GGTCTCTTCTGGGGCTTTACCAGGAGAAGACTCTTCCACCTCTTTTTGCCTGAATGGCCTTTGGGCA
CAAGGTCAGAGGCTGGATGTGGACCAGGCCCTGAACAGAAGCCATGAGATCTGGACTCACAGCTGCCCC
AGAGCCCAGGCAATGGCACTGACGCTTCCCAT

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC228307 representing NM_001146279
Red=Cloning site Green=Tags(s)

MESRGPLATSRLLLLLLLLLLRHTRQGWALRPVLPQTSAHDPPAVHLSNGPGQEPIAVMTFDLTKITKTS
 SSFEVRTWDEPVGIFYGDTNPKDDWFMLGLRDRPEIQLHNHWAQLTVGAGPRLDDGRWHQVEVKMEGDS
 VLLEVDGEEVLRRLRQVSGPLTSKRHPIMRIALGGLLFPASNLRLPAEISASAPTSLRSCDVESNPGIFLP
 PGTQAEFNLRDIPQPHAEPWAFSLDLGLKQAAGSGHLLALGTPENPSWLSLHLQDQKVVLSSGSGPGLDL
 PLVGLPLQLKLSMSRVVLSQGSKMKALALPPLGLAPLLNLWAKPQGRFLGALPGEDSSTSFCLNGLWA
 QGQRLDVDQALNRSHEIWITHSCPSPGNGTDASH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8006_h05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001146279

ORF Size: 1152 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001146279.3](#)

RefSeq ORF: 1155 bp

Locus ID: 6462

UniProt ID: [P04278](#)

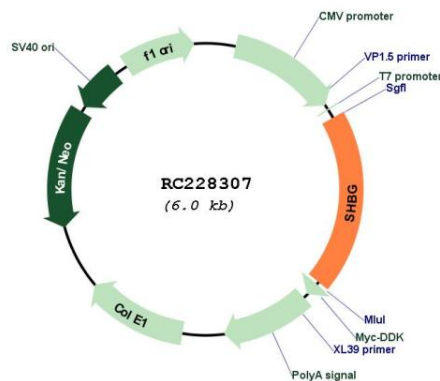
Cytogenetics: 17p13.1

Protein Families: Druggable Genome, Secreted Protein

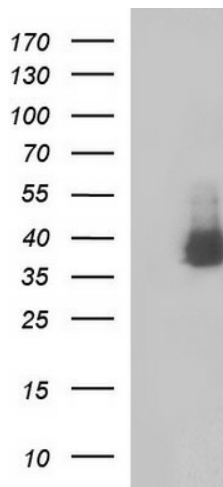
MW: 41.71 kDa

Gene Summary: This gene encodes a steroid binding protein that was first described as a plasma protein secreted by the liver but is now thought to participate in the regulation of steroid responses. The encoded protein transports androgens and estrogens in the blood, binding each steroid molecule as a dimer formed from identical or nearly identical monomers. Polymorphisms in this gene have been associated with polycystic ovary syndrome and type 2 diabetes mellitus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

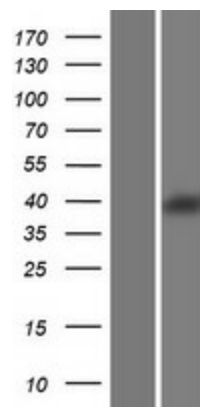
Product images:



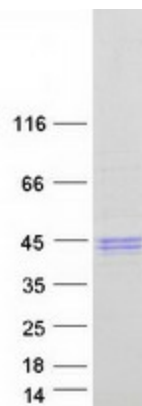
Circular map for RC228307



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SHBG (Cat# RC228307, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SHBG (Cat# [TA507187]). Positive lysates [LY431335] (100ug) and [LC431335] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY431335]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228307 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SHBG protein (Cat# [TP328307]). The protein was produced from HEK293T cells transfected with SHBG cDNA clone (Cat# RC228307) using MegaTran 2.0 (Cat# [TT210002]).