

## Product datasheet for RC204733

### Thyroxine Binding Globulin (SERPINA7) (NM\_000354) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Thyroxine Binding Globulin (SERPINA7) (NM_000354) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thyroxine Binding Globulin
Synonyms:	TBG; TBGQTL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204733 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCACCATTCTGTATCTGGTTCTCTTGGTACTTGGGCTTCATGCTACAATCCACTGTGCATCACCTG  
AAGGCAAAGTAACAGCCTGCCATTCATCCCAACCAATGCCACTCTCTACAAGATGTCATCCATTAATGC  
TGACTTTGCATTCAATCTGTACCGGAGTTCACTGTGGAGACCCAGATAAGAACATCTTCTTTCCCT  
GTGAGCATTCTGCAGCTTTGGTTATGCTTTCCTTTGGGCTGCTGCAGCACCCAACTGAGATTGTGG  
AGACCTTGGGGTCAACCTCACAGACACTCCAATGGTAGAGATCCAGCATGGCTTCCAGCATCTGATCTG  
TCACTGAATTTCCAAAGAAGGAAGTGAATTCAGATAGGAAATGCCCTCTTCAATGGCAAGCATCTG  
AAACCACTGGCAAAGTCTTGAATGATGCAAGACCTCTATGAGACTGAAGTCTTTTCTACCGACTTCT  
CCAACATTTCTGCAGCCAAGCAGGAGATTAACAGTCATGTGGAGATGCAAACCAAGGAAAGTTGTGGG  
TCTAATTAAGACCTCAAGCCAAACACCATCATGGTCTTAGTGAATATATTCACTTTAAAGCCAGTGG  
GCAAATCCTTTTGATCCATCCAAGACAGAAGACAGTTCAGCTTCTTAATAGACAAGACCACCTGTTC  
AAGTGCCCATGATGCACCAGATGGAACAATACTATCACCTAGTGGATATGGAATTGAAGTGCACAGTTCT  
GCAAATGGACTACAGCAAGAATGCTCTGGCACTTTTGTCTTCCAAGGAGGGACAGATGGAGTCAGTG  
GAAGCTGCCATGTCATCTAAAACACTGAAGAAGTGAACCGCTTACTACAGAAGGGATGGTTGACTTGT  
TTGTTCCAAAGTTTTCCATTTCTGCCACATATGACCTTGGAGCCACACTTTTGAAGATGGGCATTCAGCA  
TGCTATTCTGAAAATGCTGATTTTTCTGGACTCACAGAGGACAATGGTCTGAACTTTCCAATGCTGCC  
CATAAGGCTGTGCTGCACATTGGTAAAAGGAACTGAAGCTGCAGCTGTCCCTGAAGTTGAACTTTCGG  
ATCAGCCTGAAAACACTTTCCTACACCCTATTATCCAAATTGATAGATCTTTCATGTTGTTGATTTTGA  
GAGAAGCACAAAGGAGTATTCTTTCTAGGGAAAGTTGTGAACCAACGGAAGCG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC204733 protein sequence  
 Red=Cloning site Green=Tags(s)

MSPFLYLVLVLLVGLHATIHCA SPEGKVTACHSSQP NATLYKMSSINADFAFNLYRRFTVETPDKNIFFSP  
 VSISAALVMLSFGACCSTQTEIVETLGFNLDTMPVEIQHGFQHLICSLNFPKKELELQIGNALFIGKHL  
 KPLAKFLNDVKTLYETEVSDFSNISAAKQEQINSHVEMQTKGKVVGLIQDLKPNTIMVLVNYIHFKAQW  
 ANPFDPSKTEDSSSFLIDKTTTVQVPMHQMEQYYHLVDMELNCTVLQMDYSKNALALFVLPKEGQMESV  
 EAAMSSKTLKKWNRLQKGWDLFVPKFSISATYDLGATLLKMGIQHAYSENADFSGLTEDNGLKLSNAA  
 HKAVLHIGEGKTEAAAVPEVELSDQPENTFLHPIIQIDRSFMLLILERSTRSILFLGKVVNPTEA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6438\\_a05.zip](https://cdn.origene.com/chromatograms/mk6438_a05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_000354

**ORF Size:** 1245 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\\_000354.6](#)

**RefSeq Size:** 1600 bp

**RefSeq ORF:** 1248 bp

**Locus ID:** 6906

**UniProt ID:** [P05543](#)

**Cytogenetics:** Xq22.3

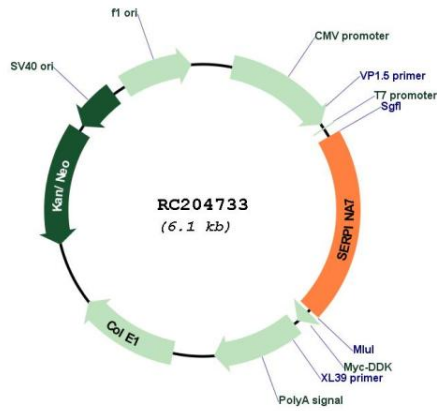
**Domains:** SERPIN

**Protein Families:** Druggable Genome, Secreted Protein

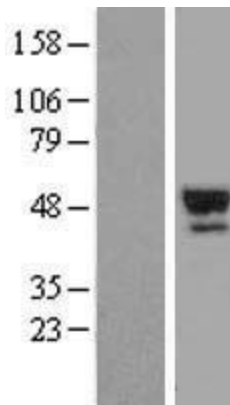
**MW:** 46.3 kDa

**Gene Summary:** There are three proteins including thyroxine-binding globulin (TBG), transthyretin and albumin responsible for carrying the thyroid hormones thyroxine (T4) and 3,5,3'-triiodothyronine (T3) in the bloodstream. This gene encodes the major thyroid hormone transport protein, TBG, in serum. It belongs to the serpin family in genomics, but the protein has no inhibitory function like many other members of the serpin family. Mutations in this gene result in TGB deficiency, which has been classified as partial deficiency, complete deficiency, and excess, based on the level of serum TBG. Alternatively spliced transcript variants encoding different isoforms have been found, but the full-length nature of these variants has not been determined.[provided by RefSeq, Jun 2012]

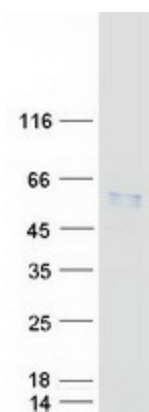
Product images:



Circular map for RC204733



Western blot validation of overexpression lysate (Cat# [LY424772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204733 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SERPINA7 protein (Cat# [TP304733]). The protein was produced from HEK293T cells transfected with SERPINA7 cDNA clone (Cat# RC204733) using MegaTran 2.0 (Cat# [TT210002]).