

## Product datasheet for **RC225776**

### Thyroid Hormone Receptor beta (THRB) (NM\_001128176) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Thyroid Hormone Receptor beta (THRB) (NM_001128176) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thyroid Hormone Receptor beta
Synonyms:	C-ERBA-2; C-ERBA-BETA; ERBA2; GRTH; NR1A2; PPTH; THR1; THRB1; THRB2; TRbeta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC225776 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGACTCCCAACAGTATGACAGAAAATGGCCTTACAGCCTGGGACAAACCGAAGCACTGTCCAGACCGAG  
 AACACGACTGGAAGCTAGTAGGAATGTCTGAAGCCTGCCTACATAGGAAGAGCCATTAGAGAGGGCGCAG  
 CACGTTGAAAAATGAACAGTCGTCGCCACATCTCATCCAGACCCTTGGACTAGCTCAATATTCCATCTG  
 GACCATGATGATGAACGACCAGAGTGTCTCAAGTGCCAGACCTTCCAAACGGAGGAGAAGAAATGTA  
 AAGGGTACATCCCAGTTACTTAGACAAGGACGAGCTCTGTGTAGTGTGGTGACAAAGCCACCGGGTA  
 TCACTACCGCTGTATCACGTGTGAAGGCTGCAAGGTTTCTTTAGAAGAACCATTAGAAAAATCTCCAT  
 CCATCCTATTCTGTAATATGAAGGAAAATGTGTCATAGACAAAGTCACGCGAAATCAGTGCCAGGAAT  
 GTCGCTTAAGAAATGCATCTATGTTGGCATGGCAACAGATTTGGTGTGGATGACAGCAAGAGGCTGGC  
 CAAGAGGAAGCTGATAGAGGAGAACCAGGAGAAAAGACGCGGGGAAAGAGCTGCAGAAGTCCATCGGGCAC  
 AAGCCAGAGCCCACAGACGAGGAATGGGAGCTCATCAAACTGTACCGAAGCCCATGTGGCGACCAACG  
 CCCAAGGCAGCCACTGGAAGCAAAAACGAAAATTCCTGCCAGAAGACATTGGACAAGCACAATAGTCAA  
 TGCCCCAGAAGGTGAAAAGGTTGACTTGGAAAGCCTTACGCCATTTTACAAAAATCATCACACCAGCAATT  
 ACCAGAGTGGTGGATTTTGCCAAAAAGTTGCCTATGTTTTGTGAGCTGCCATGTGAAGACCAGATCATCC  
 TCCTCAAAGGCTGCTGCATGGAGATCATGTCCCTTCGCGCTGCTGTGCGCTATGACCCAGAAAGTGAGAC  
 TTTAACCTTGAATGGGAAAATGGCAGTGACACGGGGCCAGCTGAAAAATGGGGTCTTGGGGTGGTGCA  
 GACGCCATCTTTGACCTGGGCATGTCTGTCTTCTTCAACCTGGATGACACTGAAGTAGCCCTCCTTC  
 AGGCCGTCCTGCTGATGTCTTCAGATCGCCCGGGCTTGCCTGTGTTGAGAGAATAGAAAATACCAAGC  
 TAGTTTCCCTGCTGGCCTTTGAACACTATATCAATTACCGAAAACACCACGTGACACACTTTTGGCCAAAA  
 CTCTGATGAAGGTGACAGATCTGCGGATGATAGGAGCCTGCCATGCCAGCCGCTTCTGCACATGAAGG  
 TGGAAATGCCCCACAGAACTCTCCCCCTTTGTTCTTGGAAAGTGTTCGAGGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225776 protein sequence  
 Red=Cloning site Green=Tags(s)

MTPNSMTEGLTAWDKPKHCPDREHDWKLVMSEACLHRKSHSERRSTLKNEQSSPHLIQTTWTSSIFHL  
 DHDDVNDQSVSSAQTFQTEEKCKGYIPSYLDKDEL CVVCGDKATGYHYRCITCEGCKGFFRRTIQKNLH  
 PSYSCKYEGKCVIDKVTRNQCECRFKKIYVGMATDLVLDDSKRLAKRKLIEENREKRRREELQKSIGH  
 KPEPTDEEWELIKTVTEAHVATNAQGSWKQKRKFLPEDIGQAPIVNAPEGGKVDLEAFSHFTKIITPAI  
 TRVVDFAKKLPMFCELPCEQIILLKGCMEIMSLRAAVRYDPESETLTLNGEMAVTRGQLKNGGLGVVS  
 DAIFDLGMSLSSFNLDDTEVALLQAVLLMSSDRPGLACVERIEKYQDSFLLAFEHYINYRKHVHTHFWPK  
 LLMKVTDLRMIGACHASRFLHMKVECPTELPPLFLEVFED

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6048\\_d08.zip](https://cdn.origene.com/chromatograms/mk6048_d08.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001128176

**ORF Size:** 1383 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\\_001128176.3](#)

**RefSeq Size:** 7527 bp

**RefSeq ORF:** 1386 bp

**Locus ID:** 7068

**UniProt ID:** [P10828](#)

**Cytogenetics:** 3p24.2

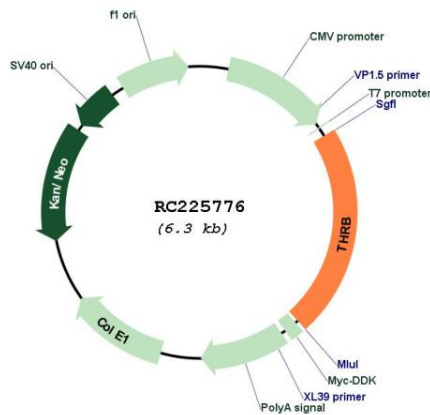
**Protein Families:** Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

**Protein Pathways:** Neuroactive ligand-receptor interaction

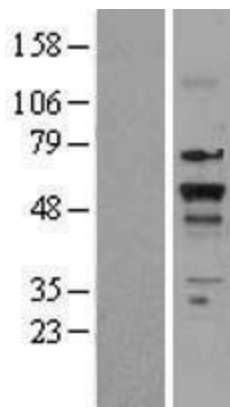
**MW:** 52.8 kDa

**Gene Summary:** The protein encoded by this gene is a nuclear hormone receptor for triiodothyronine. It is one of the several receptors for thyroid hormone, and has been shown to mediate the biological activities of thyroid hormone. Knockout studies in mice suggest that the different receptors, while having certain extent of redundancy, may mediate different functions of thyroid hormone. Mutations in this gene are known to be a cause of generalized thyroid hormone resistance (GTHR), a syndrome characterized by goiter and high levels of circulating thyroid hormone (T3-T4), with normal or slightly elevated thyroid stimulating hormone (TSH). Several alternatively spliced transcript variants encoding the same protein have been observed for this gene. [provided by RefSeq, Jul 2008]

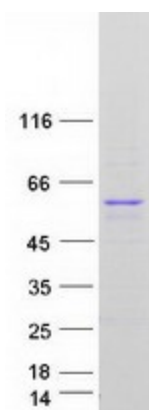
**Product images:**



Circular map for RC225776



Western blot validation of overexpression lysate (Cat# [LY426914]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225777] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified THRB protein (Cat# [TP325776]). The protein was produced from HEK293T cells transfected with THRB cDNA clone (Cat# RC225776) using MegaTran 2.0 (Cat# [TT210002]).