

Product datasheet for **RC217873**

Thyroid Hormone Receptor beta (THRB) (NM_000461) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thyroid Hormone Receptor beta (THRB) (NM_000461) 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:

>RC217873 representing NM_000461
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTCCCAACAGTATGACAGAAAATGGCCTTACAGCCTGGGACAAACCGAAGCACTGTCCAGACCGAG
 AACACGACTGGAAGCTAGTAGGAATGTCTGAAGCCTGCCTACATAGGAAGAGCCATTAGAGAGGCGCAG
 CACGTTGAAAAATGAACAGTCGTCGCCACATCTCATCCAGACCACTTGGACTAGCTCAATATTCCATCTG
 GACCATGATGATGAACGACAGAGTGTCTCAAGTGCCAGACCTTCCAAACGGAGGAGAAGAAAATGTA
 AAGGGTACATCCCAGTTACTTAGACAAGGACGAGCTCTGTGTAGTGTGGTGACAAAGCCACCGGGTA
 TCACTACCGCTGTATCACGTGTGAAGGCTGCAAGGTTTCTTTAGAAGAACCATTAGAAAAATCTCCAT
 CCATCCTATTCTGTAATATGAAGGAAAATGTGTCATAGACAAAGTCACGCGAAATCAGTGCCAGGAAT
 GTCGCTTAAGAAATGCATCTATGTTGGCATGGCAACAGATTTGGTGTGGATGACAGCAAGAGGCTGGC
 CAAGAGGAAGCTGATAGAGGAGAACCAGGAGAAAAGACGCGGGGAAAGAGCTGCAGAAGTCCATCGGGCAC
 AAGCCAGAGCCCACAGACGAGGAATGGGAGCTCATCAAACTGTACCGAAGCCCATGTGGCGACCAACG
 CCCAAGGCAGCCACTGGAAGCAAAAACGAAAATTCCTGCCAGAAGACATTGGACAAGCACAATAGTCAA
 TGCCCCAGAAGGTGAAAAGGTTGACTTGGAAAGCCTTACGCCATTTTACAAAAATCATCACACCAGCAATT
 ACCAGAGTGGTGGATTTTGCCAAAAAGTTGCCTATGTTTTGTGAGCTGCCATGTGAAGACCAGATCATCC
 TCCTCAAAGGCTGCTGCATGGAGATCATGTCCCTTCGCGCTGCTGTGCGCTATGACCCAGAAAGTGAGAC
 TTTAACCTTGAATGGGAAAATGGCAGTGACACGGGGCCAGCTGAAAAATGGGGTCTTGGGGTGGTGCA
 GACGCCATCTTTGACCTGGGCATGTCTGTCTTCTTTCAACCTGGATGACACTGAAGTAGCCCTCTTTC
 AGGCCGTCCTGCTGATGTCTTCAGATCGCCCGGGCTTGCCTGTGTTGAGAGAATAGAAAATACCAAGA
 TAGTTTCTGCTGGCCTTTGAACACTATATCAATTACCGAAAACACCACGTGACACACTTTTGGCCAAAA
 CTCTGATGAAGGTGACAGATCTGCGGATGATAGGAGCCTGCCATGCCAGCCGCTTCTGACATGAAGG
 TGGAAATGCCCCACAGAACTCTTCCCCCTTTGTTCTTGGAAAGTGTTCGAGGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217873 representing NM_000461
 Red=Cloning site Green=Tags(s)

MTPNSMTEGLTAWDKPKHCPDREHDWKLVMSEACLHRKSHSERRSTLKNEQSSPHLIQTTWTSSIFHL
 DHDDVNDQSVSSAQTFQTEEKCKGYIPSYLDKDEL CVVCGDKATGYHYRCITCEGCKGFFRRTIQKNLH
 PSYSCKYEGKCVIDKVTRNQCECRFKKIYVGMATDLVLDDSKRLAKRKLIEENREKRRREELQKSIGH
 KPEPTDEEWELIKTVTEAHVATNAQGSWKQKRKFLPEDIGQAPIVNAPEGGKVDLEAFSHFTKIITPAI
 TRVVDFAKKLPMFCELPCEQIILLKGCMEIMSLRAAVRYDPESETLTLNGEMAVTRGQLKNGGLGVVS
 DAIFDLGMSLSSFNLDDTEVALLQAVLLMSSDRPGLACVERIEKYQDSFLLAFEHYINRYKHHVTHFWPK
 LLMKVTDLRMIGACHASRFLHMKVECPTELPPLFLEVFED

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6048_d08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000461

ORF Size: 1383 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

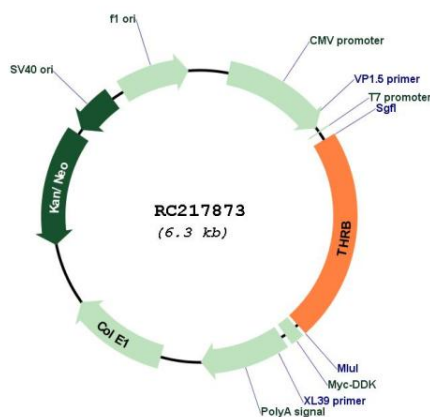
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

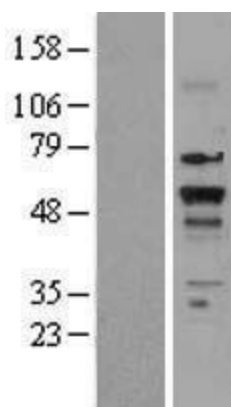
RefSeq:	NM_000461.5
RefSeq Size:	1814 bp
RefSeq ORF:	1386 bp
Locus ID:	7068
UniProt ID:	P10828
Cytogenetics:	3p24.2
Domains:	HOLI, zf-C4
Protein Families:	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
Protein Pathways:	Neuroactive ligand-receptor interaction
MW:	52.6 kDa

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 RC217873



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]).