Product datasheet for RC217873L3

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

Product data:

Product Type:	Expression Plasmids
Product Name:	Thyroid Hormone Receptor beta (THRB) (NM_000461) Human Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	Thyroid Hormone Receptor beta
Synonyms:	C-ERBA-2; C-ERBA-BETA; ERBA2; GRTH; NR1A2; PRTH; THR1; THRB1; THRB2; TRbeta
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC217873).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

```
         Sgf I              ORF              Mlu I
--- GCG ATC GC C ATG ---//--- NNŇ ACG CGT ---
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                                                    Kozak
                                                  Consensus
              EcoR I      BamH I      RBS          Sgf I              ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

                              Mlu I      Not I  Xho I        Myc.Tag
--- --- --- --- --- --- NNŇ ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
                             T   R   T   R   P   L   E   Q   K   L   I   S   E   E

                      DDK.Tag
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TGGGTAGGAAG
 D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V
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* The last codon before the Stop codon of the ORF.

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ACCN:	NM_000461
ORF Size:	1383 bp

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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_000461.2
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:
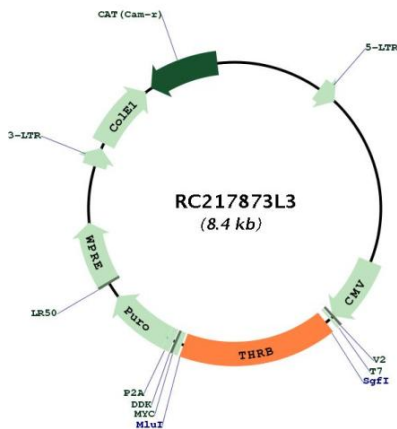
Circular map for RC217873L3
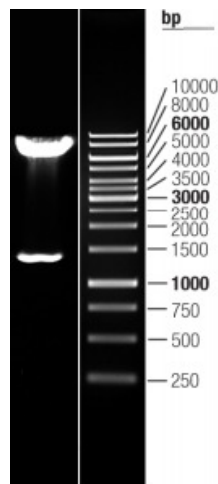
Double digestion of RC217873L3 using SgfI and MluI