

Product datasheet for RC219231

Thyrotropin Releasing Hormone (TRH) (NM_007117) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thyrotropin Releasing Hormone (TRH) (NM_007117) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thyrotropin Releasing Hormone
Synonyms:	Pro-TRH; TRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219231 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCCGATCGCC

ATGCCCGGCCCTTGTTGCTGCTCGCTCTGGCTTTGACCCTGAACCTGACCGGTGTCCCCGGCGGCCGTGCTCAGCCAGAGGGCGCCAGCAGGAGGCAGTGACGGCCGCGGAGCATCCGGGCCTGGATGACTTCCTGCCCAGGTGGAGCGCCTCCTCTTCCCGGAAAACATCCAGCGGCTGCAAGGGGACCAGGGTGAGCACTCCGGTCCCAGATCTTTCAATCTGACTGGCTCTCAAACGTCAGCATCCAGGCAAAAGAGAGGAGGAGGAGGAAAGAGGGAGTTGAAGAAGAGGAAGAGGAAGAAGGGGGGCTGTGGACCCACAAACGGCAGCACCTGGCCGACGAGCAAGATGAGGCTTCATGGTCAGTCGATGTAACCCAGCACAAGCGGCAGCATCCTGGCCGGCGCTCCCCCTGGCTTGATATGCTGTCCCGAAGCGGCAGCACCCAGGCAGAAGGCTGGCAGATCCCAAGGCTCAAAGGAGCTGGGAAGAAGAGGAGGAGGAGGAAGAGAGAGAGGAAGACCTGATGCCTGAAAAACGCCAGCATCCGGGCAAGAGGGCCCTGGGAGGCCCTGTGGGCCCCAGGGAGCCTATGGTCAAGCGGGCCTCCTGCTGGGCTCCTGGATGACCTGAGTAGGAGCCAGGGAGCTGAGGAAAAGCGGCAGCACCTGGTCGGCGGGCAGCCTGGGTCAGGGAGCCCCCTGGAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC219231 protein sequence
 Red=Cloning site Green=Tags(s)

MPGPWLLALALTLNLGVPGGRAQPEAAQQEAVTAAEHPGLDDFLRQVERLLFLRENIQRLQGDQGEHS
 ASQIFQSDWLSCRQHPGKREEEEEEGVEEEEEEGGAVGPHKRQHPGRREDEASWSVDVTQHKRQHPGRR
 SPWLAYAVPKRQHPGRRLADPKAQRSWEEEEEREDLMPEKRQHPGKRALGGPCGPQYGQAGLLL
 GLLDDLRSRSGAEEKRQHPGRRAAWVREPLEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6446_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_007117

ORF Size: 726 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_007117.1](#), [NP_009048.1](#)

RefSeq Size: 1890 bp

RefSeq ORF: 729 bp

Locus ID: 7200

UniProt ID: [P20396](#)

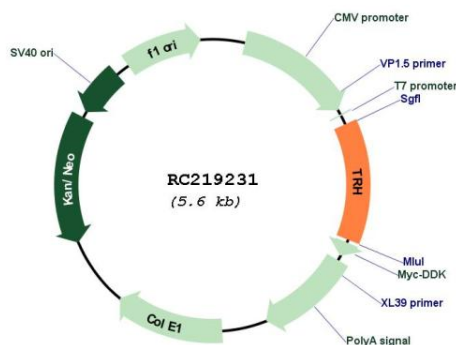
Cytogenetics: 3q22.1

Protein Families: Druggable Genome, Secreted Protein

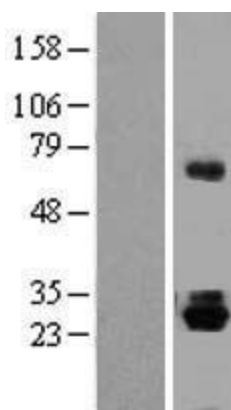
MW: 27.4 kDa

Gene Summary: This gene encodes a member of the thyrotropin-releasing hormone family. Cleavage of the encoded proprotein releases mature thyrotropin-releasing hormone, which is a tripeptide hypothalamic regulatory hormone. The human proprotein contains six thyrotropin-releasing hormone tripeptides. Thyrotropin-releasing hormone is involved in the regulation and release of thyroid-stimulating hormone, as well as prolactin. Deficiency of this hormone has been associated with hypothalamic hypothyroidism. [provided by RefSeq, May 2013]

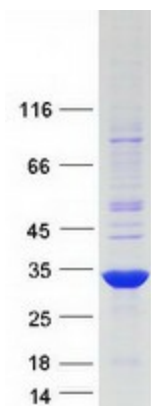
Product images:



Circular map for RC219231



Western blot validation of overexpression lysate (Cat# [LY416185]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219231 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TRH protein (Cat# [TP319231]). The protein was produced from HEK293T cells transfected with TRH cDNA clone (Cat# RC219231) using MegaTran 2.0 (Cat# [TT210002]).