

Product datasheet for **RC216914**

TSH beta (TSHB) (NM_000549) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TSH beta (TSHB) (NM_000549) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TSH beta
Synonyms: TSH-B; TSH-BETA
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC216914 representing NM_000549
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGACTGCTCTTTCTGATGTCCATGCTTTTTGGCCTTGCATGTGGCAAGCGATGTCTTTTTGTATTC
CAACTGAGTATAACAATGCACATCGAAAGGAGAGAGTGTGCTTATTGCCTAACCATCAACACCACCATCTG
TGCTGGATATTGTATGACACGGGATATCAATGGCAAAGTCTTCCCAAATATGCTCTGTCCCAGGAT
GTTTGCACATATAGAGACTTCATCTACAGGACTGTAGAAATACCAGGATGCCACTCCATGTTGCTCCCT
ATTTTTCTATCCTGTTGCTTTAAGCTGTAAGTGTGGCAAGTGAATACTGACTATAGTACTGCATACA
TGAAGCCATCAAGACAACTACTGTACCAAACCTCAGAAGTCTTATCTGGTAGGATTTTCTGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216914 representing NM_000549
Red=Cloning site Green=Tags(s)
MTALFLMSMLFGLACGQAMSFCIPTEYTMHIERRECAVCLTINTTICAGYCMTRDINGKLFPLKYALSQD
VCTYRDFIYRTVEIPGCPLHVAPYFSYPVALSCKCGKCNTRYSDCIHEAIKTNCTKPKQSYLVGFVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8001_a12.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_000549

ORF Size: 414 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_000549.2](#), [NP_000540.1](#)

RefSeq Size: 578 bp

RefSeq ORF: 417 bp

Locus ID: 7252

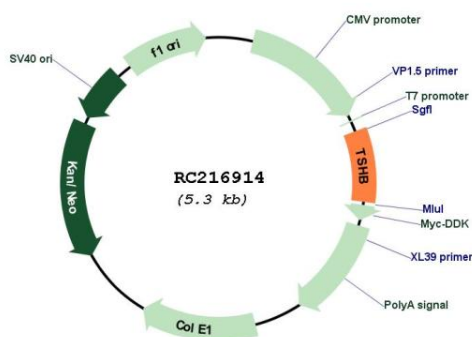
UniProt ID: [P01222](#)

Cytogenetics: 1p13.2
Protein Families: Druggable Genome, Secreted Protein
Protein Pathways: Autoimmune thyroid disease, Neuroactive ligand-receptor interaction

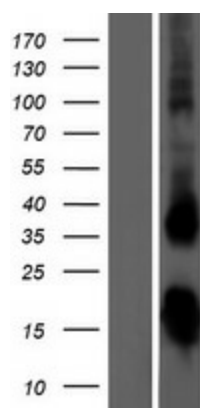
MW: 15.61 kDa

Gene Summary: The four human glycoprotein hormones chorionic gonadotropin (CG), luteinizing hormone (LH), follicle stimulating hormone (FSH), and thyroid stimulating hormone (TSH) are dimers consisting of alpha and beta subunits that are associated noncovalently. The alpha subunits of these hormones are identical, however, their beta chains are unique and confer biological specificity. Thyroid stimulating hormone functions in the control of thyroid structure and metabolism. The protein encoded by this gene is the beta subunit of thyroid stimulating hormone. Mutations in this gene are associated with congenital central and secondary hypothyroidism and Hashimoto's thyroiditis. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2013]

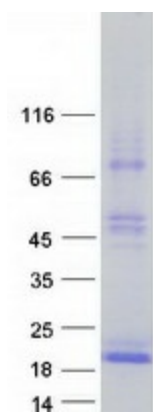
Product images:



Circular map for RC216914



Western blot validation of overexpression lysate (Cat# [LY424650]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216914 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TSHB protein (Cat# [TP316914]). The protein was produced from HEK293T cells transfected with TSHB cDNA clone (Cat# RC216914) using MegaTran 2.0 (Cat# [TT210002]).