

Product datasheet for **SC333462**

TSH beta (TSHB) (NM_001277991) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TSH beta (TSHB) (NM_001277991) Human Untagged Clone
Tag:	Tag Free
Symbol:	TSH beta
Synonyms:	TSH-B; TSH-BETA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC333462 representing NM_001277991. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**
 ATGCTCTCTTTTCTGTTCTTTCCCGAGGATATCAATGGCAAAGTGTTCCTTCCCAATATGCTCTGTCC
 CAGGATGTTTGCACATATAGAGACTTCATCTACAGGACTGTAGAAATACCAGGATGCCACTCCATGTT
 GCTCCCTATTTTCTATCCTGTTGCTTTAAGCTGTAAGTGTGGCAAGTGAATACTGACTATAGTGAC
 TGCATACATGAAGCCATCAAGACAACTACTGTACCAACCTCAGAAGTCTTATCTGGTAGGATTTTCT
 GTC**TAA**
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001277991
Insert Size:	282 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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).


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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_001277991.1](#)

RefSeq Size: 364 bp

RefSeq ORF: 282 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: 10.6 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]

Transcript Variant: This variant (2) initiates translation at an alternate start codon and contains an intronless coding sequence, compared to variant 1. The encoded isoform (2, also known as novel TSH-beta) has a distinct N-terminus and is shorter than isoform 1. This variant is based on experimental data in PMIDs 19364510 and 22752807. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on data in published reports (PMIDs 19364510 and 22752807).