

Product datasheet for **SC315415**

Tropomyosin 3 (TPM3) (NM_001043351) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tropomyosin 3 (TPM3) (NM_001043351) Human Untagged Clone
Tag:	Tag Free
Symbol:	TPM3
Synonyms:	CAPM1; CFTD; HEL-189; HEL-S-82p; hscp30; NEM1; OK/SW-cl.5; TM-5; TM3; TM5; TM30; TM30nm; TPM3nu; TPMsk3; TRK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC315415 representing NM_001043351. Blue=Insert sequence Red=Cloning site Green=Tag(s)

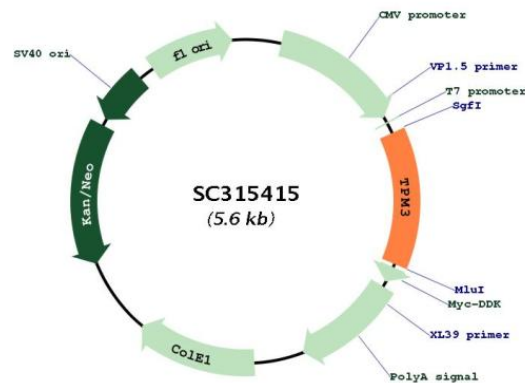
```
GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCTGGGATCACCAACCGTGAAGCGGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGAT
GCAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGAGGGAGAAAGCGGGCCCGGAACAGGCTGAG
GCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAGGAGCGC
CTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGAGAGGTATGAAG
GTTATTGAAAACCGGCCCTTAAAGATGAAGAAAAGATGGAACCTCAGGAAATCCAACCTCAAAGAAGCT
AAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCATTGAAGGA
GACTTGGAAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTCTGAGCTGGAGGAGGAGCTG
AAGAATGTACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAA
TATGAGGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAG
AGATCGGTAGCCAAGCTGGAAAAGACAATTGATGACCTGGAAGATAAACTGAAATGCACCAAGAGGAG
CACCTCTGTACACAAAGGATGCTGGACCAGACCCTGCTTGACCTGAATGAGATGTAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: Sgfl-MluI



[View online »](#)

Plasmid Map:



ACCN: NM_001043351

Insert Size: 747 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001043351.1](#)

RefSeq Size: 3212 bp

RefSeq ORF:	747 bp
Locus ID:	7170
UniProt ID:	P06753
Cytogenetics:	1q21.3
Protein Pathways:	Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Thyroid cancer
MW:	28.9 kDa

Gene Summary: This gene encodes a member of the tropomyosin family of actin-binding proteins. Tropomyosins are dimers of coiled-coil proteins that provide stability to actin filaments and regulate access of other actin-binding proteins. Mutations in this gene result in autosomal dominant nemaline myopathy and other muscle disorders. This locus is involved in translocations with other loci, including anaplastic lymphoma receptor tyrosine kinase (ALK) and neurotrophic tyrosine kinase receptor type 1 (NTRK1), which result in the formation of fusion proteins that act as oncogenes. There are numerous pseudogenes for this gene on different chromosomes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2013]

Transcript Variant: This variant (Tpm3.2, also known as variant 4) lacks an exon and contains an alternate exon in the central coding region, but maintains the reading frame, compared to variant Tpm3.1. The encoded isoform (Tpm3.2cy, also known as isoform 4 or Tm5NM2) is the same length as isoform Tpm3.1cy but differs in the sequence. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.