

## Product datasheet for RC222017

### Thymosin beta 4 (TMSB4X) (NM\_021109) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Thymosin beta 4 (TMSB4X) (NM_021109) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thymosin beta 4
Synonyms:	FX; PTMB4; TB4X; TMSB4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	<p>&gt;RC222017 representing NM_021109  <span style="color:red">Red</span>=Cloning site <span style="color:blue">Blue</span>=ORF <span style="color:green">Green</span>=Tags(s)</p> <p>TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  <span style="color:red">GCCCGCATCGCC</span></p> <p><span style="color:blue">ATGTCTGACAAACCCGATATGGCTGAGATCGAGAAATTCGATAAGTCGAAACTGAAGAAGACAGAGACGC  AAGAGAAAAATCCACTGCCTTCCAAAGAAACGATTGAACAGGAGAAGCAAGCAGGCGAATCG</span></p> <p><span style="color:red">ACGCGT</span><span style="color:green">ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  ACAAGGATGACGACGATAAGGTTTAA</span></p>
Protein Sequence:	<p>&gt;RC222017 representing NM_021109  <span style="color:red">Red</span>=Cloning site <span style="color:green">Green</span>=Tags(s)</p> <p>MSDKPDMAEIEKFDKSKLKKTTETQEKNPLPSKETIEQEKGAGES</p> <p><span style="color:red">TR</span><span style="color:green">TRPLEQKLI</span>SEEDLAANDILDYKDDDDKV</p>
Chromatograms:	<a href="https://cdn.origene.com/chromatograms/mk6239_a10.zip">https://cdn.origene.com/chromatograms/mk6239_a10.zip</a>
Restriction Sites:	Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_021109

**ORF Size:** 132 bp

**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](mailto: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\\_021109.4](#)

**RefSeq Size:** 657 bp

**RefSeq ORF:** 135 bp

**Locus ID:** 7114

**UniProt ID:** [P62328](#)

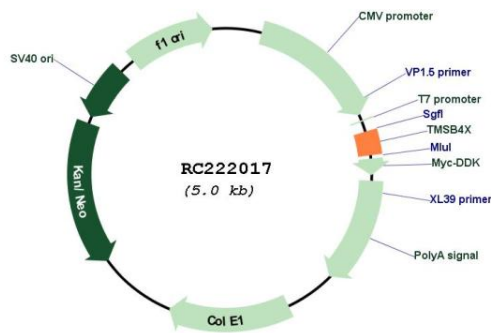
**Cytogenetics:** Xp22.2

**Protein Pathways:** Regulation of actin cytoskeleton

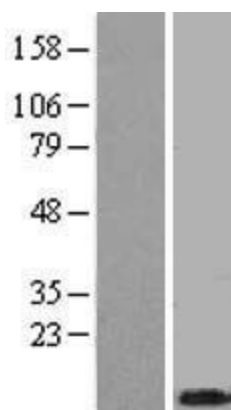
**MW:** 5.1 kDa

**Gene Summary:** This gene encodes an actin sequestering protein which plays a role in regulation of actin polymerization. The protein is also involved in cell proliferation, migration, and differentiation. This gene escapes X inactivation and has a homolog on chromosome Y. [provided by RefSeq, Jul 2008]

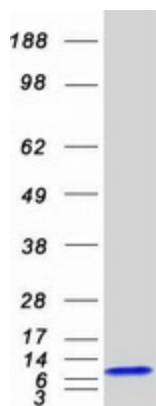
**Product images:**



Circular map for RC222017



Western blot validation of overexpression lysate (Cat# [LY412081]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222017 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TMSB4X protein (Cat# [TP322017]). The protein was produced from HEK293T cells transfected with TMSB4X cDNA clone (Cat# RC222017) using MegaTran 2.0 (Cat# [TT210002]).