

Product datasheet for **RR206330**

Th (NM_012740) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Th (NM_012740) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Th
Synonyms:	The
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR206330 representing NM_012740
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCACCCCCAGCGCCCCCTCGCCACAGCCCAAGGGCTTCAGAAGGGCCGTCTCAGAGCAGGATGCCA
 AGCAGGCCGAGGCTGTACGTCCCCAAGGTTTCATCGGACGGCGACAGAGTCTCATCGAGGATGCCCGCAA
 GGAGCGGAGGGCGGCGAGCTGCAGCAGCAGCAGCGGTAGCCTCCTCGGAACCTGGGAACCCACTGGAG
 GCTGTGGTATTTGAGGAGAGGGATGGGAATGCTGTTCTCAACCTGCTCTTCTCCCTGAGGGGTACAAAAC
 CCTCTCTTGTCTCGGGCTGTAAAAGTATTTGAGACATTTGAAGCCAAAATTCACCACTTAGAGACCCG
 GCCTGCCAGAGGCCACTGGCAGGAAGCCCCACCTGGAGTATTTGTGCGCTTCGAGGTGCCAGTGGA
 GACCTGGTGCCTCCTCAGCTCTGTGCGTCGGGTGTCTGACGACGTGCGCAGTGCCAGAGAGGACAAGG
 TCCCTGGTCCCAAGAAAAGTGTGGAATTGGACAAGTGTACCACCTGGTACCAAGTTTGACCTGA
 TCTGGACCTGGACCACCCGGCTTCTCTGACCAGGTGTATCGCCAGCGTCGGAAGCTGATTGCAGAGATT
 GCCTTCCAGTACAAGCACGGTGAACCAATTCGCCATGTGGAATACACAGCGGAAGAGATTGCTACCTGGA
 AGGAGGTATATGTCACGCTGAAGGGCTCTATGCTACCCATGCCTGCCGGGAGCACCTGGAGGGTTTCCA
 GCTTCTGGAACGGTACTGTGGCTACCGAGAGGACAGCATCCCACAGCTGGAGGACGTGTCCCGCTTCTTG
 AAGGAGCGGACTGGCTTCCAGCTGCGACCCGTGGCCGGTCTACTGTCCGCCGTGATTTTCTGGCCAGTC
 TGGCCTCCCGGTGTTTCAATGCACCCAGTATATCCGCCATGCCTCCTCACCTATGCATTACCTGAGCC
 GGACTGCTGCCATGAGCTGTTGGGACATGTACCCATGTTGGCTGACCGCACATTTGCCAGTTCTCCAG
 GACATTGGACTTGCACTCTCGGGGCTCAGATGAAGAAATGAAAACTCTCCACGGTGTACTGGTTC
 CTGTGGAATTCGGGCTATGTAACAGAATGGGGAGCTGAAGGCTTATGGTGCAGGGCTGTCTTCTCTA
 CGGAGAGCTCCTGCACTCCCTGTACAGAGAGCCTGAGGTCCGAGCCTTTGACCCAGACACAGCAGCTGTG
 CAGCCCTACCAAGATCAACCTACCAGCCTGTGTACTTTGTGTCGAGAGCTTCAATGACGCCAAGGACA
 AGCTCAGAACTATGCCTCTCGTATCCAGCGCCATTCTCTGTGAAGTTTGACCCGTACACACTGGCCAT
 TGACGTAAGTGGACAGCCCTCACACCATCCAGCGCTCCTTGAGGGGGTCCAGGATGAGCTGCACACCCTG
 GCCACGCACTGAGTGCCATTAGC

ACCGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR206330 representing NM_012740
 Red=Cloning site Green=Tags(s)

MPTSPSPQPKGFRRVSEQDAKQAEAVTSPRFIGRRQSLIEDARKEREAAAAAAAAAVASSEPGNPLE
 AVVFEERDGNVNLNLLFSLRGTKPSSLRAVKVFETFEAKIHLETRPAQRPLAGSPHLEYFVRFVPSG
 DLAALLSSVRRVSDVRSAREDKVPWFPRKVSSELDKCHHLVTKFDPDLDDHDPGSDQVYRQRRLIAEI
 AFQYKHGEPIPHVEYTAEEIATWKEVYVTLKGLYATHACREHLEGFQLLERYCGYREDSIPQLEDVSRFL
 KERTGFQLRPVAGLLSARDFLASLAFRVFQCTQYIRHASSPMHSPEPDCHELLGHVPLADRTFAQFSQ
 DIGLASLGASDEEIEKLSVYWFVTEFGLCKQNGELKAYGAGLLSSYGELLHSLSEEPEVRAFDPDTAAV
 QPYQDQTYQPVYFVSESFNDAKDKLRNYASRIQRPFSVKFDPYTLAIDVLDSPHTIQRSLQVDELHTL
 AHLSAIS

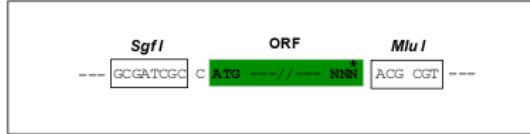
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

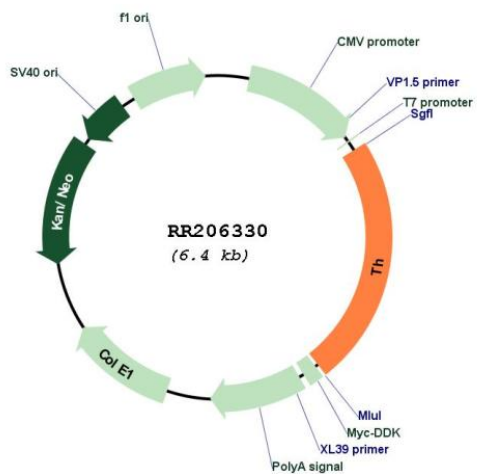
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_012740

ORF Size: 1494 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 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_012740.3](#), [NP_036872.1](#)

RefSeq Size: 1770 bp

RefSeq ORF: 1497 bp

Locus ID: 25085

UniProt ID: [P04177](#)

Cytogenetics: 1q41

MW: 56 kDa

Gene Summary: catalyzes the rate limiting step in catecholamine biosynthesis; may be involved in response to hypoxia [RGD, Feb 2006]