

Product datasheet for **MR206244**

Cth (NM_145953) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cth (NM_145953) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Cth
Synonyms: 0610010I13Rik; AI314617; BC019483; CSE; Cys3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR206244 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGCAGAAGGACGCCTCTTTGAGCGGCTTCTGCCTAGTTCCAGCATTTGCCACTCAGGCCATCCAGG
 TGGGACAAGAGCCTGAGCAATGGAATTCCTGTCGCGTGGTGTGCCCATTTCTGTTGGCCACCACATTTAA
 GCAGGACTTCCCGGGCCAGTCCCGGGTTTTGAATACAGCCGCTCTGGAAATCCAACAAGGAATTGCTTG
 GAAAAAGCAGTGGCTGCGTTGGATGGGGCAAAGCACAGTTTGGCCTTTGCATCGGGTCTTGCTGCCACCA
 TTACGATTACCCATCTTTAAAAGCAGGAGATGAAATCATTTGCATGGATGAAGTGTATGGAGGCCACCAA
 CAGGTACTTCAGGAGGGTGGCATCTGAATTTGGACTGAAGATTTCTTTGTAGATTGTTCCAAAACCAAA
 TTGCTAGAGGCAGCGATTACACCACAAACCAAGCTTGTGGATCGAAACACCCACAAACCAACTTTGA
 AGTTGGCTGACATTGGAGCCTGCGCACAAATTGTCCACAAACGTGGAGACATCATTTTGGTTGTAGATAA
 CACCTTACATGCTGCATATTTCCAGAGACCTTTGGCTCTGGGTGCTGATATTTGTATGTGTTCTGCCACA
 AAATACATGAATGGCCACAGCGATGTTGTCATGGGTTTAGTGTCTGTTAATCTGATGACCTCAATAGTC
 GGCTTCGTTTCTGCAGAATTCCTAGGAGCAGTTCCTTCTCCTTTTATTGTTACCTCTGCTGCCGAGG
 CCTGAAGACACTGCAGGTCCGGATGGAGAAACATTTCAAGAATGGGATGGCGTGGCTCGTTTCTGGAG
 ACCAATCCCGGGTAGAAAAGTTGTTTATCCTGGGCTACCCTCTACCCTCAGCATGAGCTGGCCAAAC
 GCCAGTGTCTCGGGCTGCCAGGGATGGTCAAGTTTCTACATCAAGGGTGTCTGCAGCATGCTAAGGCCTT
 CCTCAAAAATCTAAAGCTGTTTACTCTGCGAGAGCCTGGGAGGATATGAGAGTCTGGCTGAGCTTCCA
 GCAATCATGACCCATGCCTCTGTGCCTGAGAAGGACAGAGCTACCCTCGGGATCAATGACACACTGATAC
 GACTTTCTGTGGCCTAGAGGATGAACAGGACCTCTTGAAGACCTGGATCGAGCTTTGAAGGCAGCGCA
 CCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR206244 protein sequence
Red=Cloning site Green=Tags(s)

MQKDASLSGFLPSFQHFATQAIHVGEPEQWNSRAVVLPISLATTFKQDFPGQSSGFEYSRSGNPTRNCL
 EKAVAALDGAKHSLAFASGLAATITITHLLKAGDEIICMDEVYGGTNRVYFRRVASEFGLKISFVDCSKTK
 LLEAAITPQTKL VWIETPTNPTLKLADIGACAQIVHKRGDIILVVDNTFMSAYFQRPLALGADICMSAT
 KYMNGHSDVVMGLVSVNSDDLNSRLRFLQNSLGAVSPFDCYLCCRGLKTLQVRMEKHFKNMVAARFLE
 TNPRVEKVVYPGLPSPHQHELAKRQCSCGCPGMVSFYIKGALQHAKAFLKNLKLFLTAEESLGGYESLAELP
 AIMTHASVPEKDRATLGINDTLIRLSVGLLEDEQDLELDLDRALKAHP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_145953

ORF Size: 1197 bp

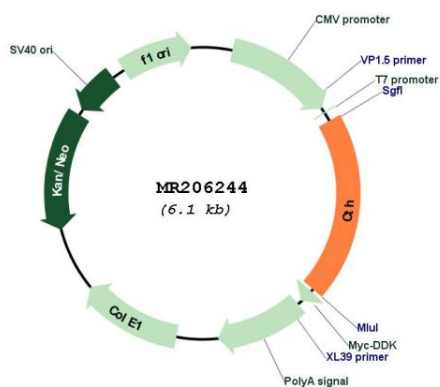
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	<ol style="list-style-type: none">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:	<u>NM_145953.2</u> , <u>NP_666065.1</u>
RefSeq Size:	1815 bp
RefSeq ORF:	1197 bp
Locus ID:	107869
UniProt ID:	<u>Q8VCN5</u>
Cytogenetics:	3 H4
MW:	43.6 kDa
Gene Summary:	Catalyzes the last step in the trans-sulfuration pathway from methionine to cysteine. Has broad substrate specificity. Converts cystathionine to cysteine, ammonia and 2-oxobutanoate. Converts two cysteine molecules to lanthionine and hydrogen sulfide. Can also accept homocysteine as substrate. Specificity depends on the levels of the endogenous substrates. Generates the endogenous signaling molecule hydrogen sulfide (H ₂ S), and so contributes to the regulation of blood pressure. Acts as a cysteine-protein sulfhydrylase by mediating sulfhydrylation of target proteins: sulfhydrylation consists of converting -SH groups into -SSH on specific cysteine residues of target proteins such as GAPDH, PTPN1 and NF-kappa-B subunit RELA, thereby regulating their function.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206244