

Product datasheet for **RC214774**

Cystathionase (CTH) (NM_153742) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cystathionase (CTH) (NM_153742) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cystathionase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214774 representing NM_153742 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGGAAAAAGACGCCTCCTCACAAGTTTCTGCCACACTTCCAACATTTGCCACGCAGGCGATCC
ATGTGGCCAGGATCCAGAGCAATGGACCTCCAGGGCTGTAGTCCCCCATCTCACTGTCCACCAGTT
CAAGCAAGGGGCGCTGGCCAGCACTCGGGTTTGAATATAGCCGTTCTGGAAATCCCACTAGGAATTGC
CTTGAAAAAGCAGTGGCAGCACTGGATGGGGCTAAGTACTGTTTGGCCTTTCAGGTTTAGCAGCCA
CTGTAACATTACCCATCTTTAAAAGCAGGAGACCAAATTTTGTATGGATGATGTATGGAGGTAC
AAACAGGTAATTCAGGCAAGTGGCATCTGAATTTGGATTAAGATTTCTTTTGGTATTGTTCCAAAATC
AAATTAAGTACTAGAGCAGCAATTACACCAGAAACCAAGCGCCTTTGGCTCTGGGAGCTGATTTTCTATGT
ATTCTGCAACAAAATACATGAATGGCCACAGTGTGTTGTAATGGGCTGGTGTCTGTTAATTGTGAAAG
CCTTCATAATAGACTTCGTTTCTTGCAAACTCTCTGGAGCAGTTCCATCTCCTATTGATTGTTACCTC
TGCAATCGAGGTCTGAAGACTCTACATGTCCGAATGGAAAAGCATTTCAAAAACGGAATGGCAGTTGCC
AGTTCCTGGAATCTAATCCTTGGGTAGAAAAGTTATTTATCCTGGGCTGCCCTCTCATCCACAGCATGA
GTTGGTGAAGCGTCAGTGTACAGGTTGTACAGGGATGGTACCTTTTATATTAAGGGCACTTTCAGCAT
GCTGAGATTTTCTCAAGAACCTAAAGCTATTTACTCTGGCCGAGAGCTTGGGAGGATTCGAAAGCCTTG
CTGAGCTTCCGGCAATCATGACTCATGCATCAGTTCTTAAGAATGACAGAGATGTCTTGGAAATAGTGA
CACACTGATTCGACTTTCTGTGGCTTAGAGGATGAGGAAGACCTACTGGAAGATCTAGATCAAGCTTTG
AAGGCAGCACACCCTCCAAGTGAAGTCACAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC214774 representing NM_153742
Red=Cloning site Green=Tags(s)

MQEKDASSQGFLPHFQHFATQAIHVGQDPEQWTSRAVVPPISLSTTFKQGAPGQHSGFYSRSGNPTRNC
 LEKAVAALDGAKYCLAFASGLAATVTITHLLKAGDQIICMDDVYGGTNRVFRQVASEFGLKISFVDCSKI
 KLLLEAAITPETKRPLALGADISMYSATKYMNGHSDVVMGLVSNCESLHNRLRFLQNSLGAVPSPIDCYL
 CNRGLKTLHVRMEKHFKNMGMAVAQFLESNPWVEKVIYPGLPSHPQHELVKRQCTGCTGMVTFYIKGTLQH
 AEIFLKNLKLFTLAESLGGFESLAELPAIMTHASVVKNDRDVVGISDTLIRLSVGLDEEDLLEDLDQAL
 KAAHPPSGSHS

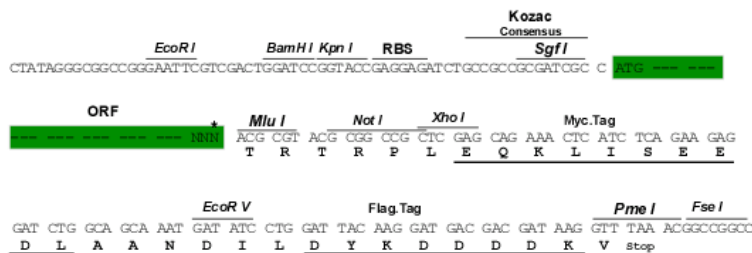
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8054_f12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_153742

ORF Size: 1083 bp

OTI Disclaimer: 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_153742.4](#), [NP_714964.2](#)

RefSeq Size: 1687 bp

RefSeq ORF: 1086 bp

Locus ID: 1491

UniProt ID: [P32929](#)

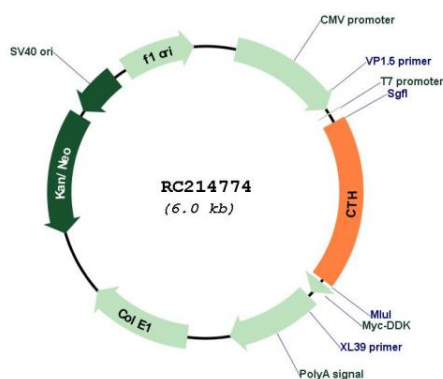
Cytogenetics: 1p31.1

Protein Pathways: Cysteine and methionine metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Nitrogen metabolism, Selenoamino acid metabolism

MW: 39.3 kDa

Gene Summary: This gene encodes a cytoplasmic enzyme in the trans-sulfuration pathway that converts cystathione derived from methionine into cysteine. Glutathione synthesis in the liver is dependent upon the availability of cysteine. Mutations in this gene cause cystathioninuria. Alternative splicing of this gene results in three transcript variants encoding different isoforms. [provided by RefSeq, Jun 2010]

Product images:



Circular map for RC214774