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Product datasheet for RG214774

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:	TurboGFP
Symbol:	CTH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG214774 representing NM_153742
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGGAAAAAGACGCCTCCTCACAAGGTTTCCTGCCACACTTCCAACATTTCGCCACGCAGGCGATCC
ATGTGGGCCAGGATCCAGAGCAATGGACCTCCAGGGCTGTAGTGCCCCCCATCTCACTGTCCACCACGTT
CAAGCAAGGGGCGCCTGGCCAGCACTCGGGTTTTGAATATAGCCGTTCTGGAAATCCCACTAGGAATTGC
CTTGAAAAAGCAGTGGCAGCACTGGATGGGGCTAAGTACTGTTTGGCCTTTGCTTCAGGTTTAGCAGCCA
CTGTAACTATTACCCATCTTTTAAAAGCAGGAGACCAAATTATTTGTATGGATGATGTGTATGGAGGTAC
AAACAGGTACTTCAGGCAAGTGGCATCTGAATTTGGATTAAAGATTTCTTTTGTTGATTGTTCCAAAATC
AAATTACTAGAGGCAGCAATTACACCAGAAACCAAGCGCCCTTTGGCTCTGGGAGCTGATATTTCTATGT
ATTCTGCAACAAAATACATGAATGGCCACAGTGATGTTGTAATGGGCCTGGTGTCTGTTAATTGTGAAAG
CCTTCATAATAGACTTCGTTTCTTGCAAAACTCTCTTGGAGCAGTTCCATCTCCTATTGATTGTTACCTC
TGCAATCGAGGTCTGAAGACTCTACATGTCCGAATGGAAAAGCATTTCAAAAACGGAATGGCAGTTGCCC
AGTTCCTGGAATCTAATCCTTGGGTAGAAAAGGTTATTTATCCTGGGCTGCCCTCTCATCCACAGCATGA
GTTGGTGAAGCGTCAGTGTACAGGTTGTACAGGGATGGTCACCTTTTATATTAAGGGCACTCTTCAGCAT
GCTGAGATTTTCCTCAAGAACCTAAAGCTATTTACTCTGGCCGAGAGCTTGGGAGGATTCGAAAGCCTTG
CTGAGCTTCCGGCAATCATGACTCATGCATCAGTTCTTAAGAATGACAGAGATGTCCTTGGAATTAGTGA
CACACTGATTCGACTTTCTGTGGGCTTAGAGGATGAGGAAGACCTACTGGAAGATCTAGATCAAGCTTTG
AAGGCAGCACACCCTCCAAGTGGAAGTCACAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

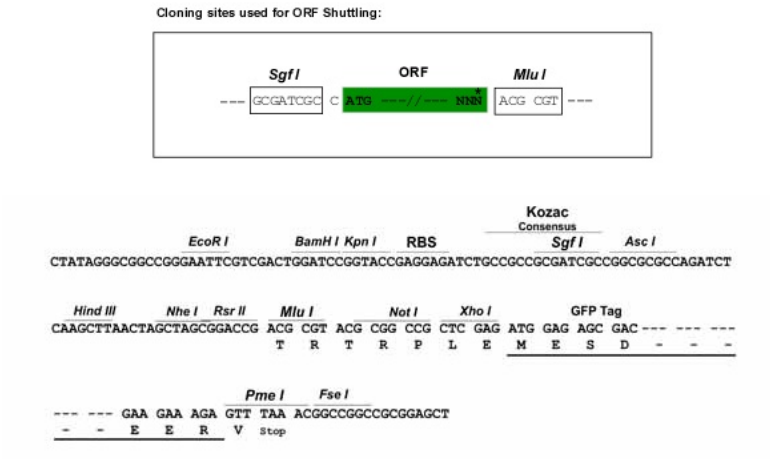
>RG214774 representing NM_153742
Red=Cloning site Green=Tags(s)

MQEKDASSQGFLPHFQHFATQAIHVGQDPEQWTSRAVVPPISLSTTFKQGAPGQHSGFEYSRSGNPTRNC
LEKAVAALDGAKYCLAFASGLAATVTITHLLKAGDQIICMDDVYGGTNRYFRQVASEFGLKISFVDCSKI
KLLEAAITPETKRPLALGADISMYSATKYMNGHSDVVMGLVSVNCESLHNRLRFLQNSLGAVPSPIDCYL
CNRGLKTLHVRMEKHFKNGMAVAQFLESNPWVEKVIYPGLPSHPQHELVKRQCTGCTGMVTFYIKGTLQH
AEIFLKNLKLFTLAESLGGFESLAELPAIMTHASVLKNDRDVLGISDTLIRLSVGLEDEEDLLEDLDQAL
KAAHPPSGSHS

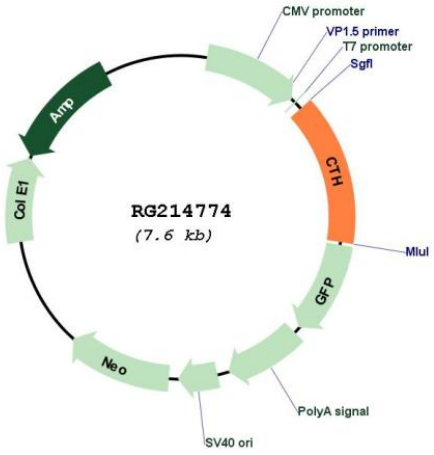
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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
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]