

Recombinant Human Cystathionase (cystathionine gamma-lyase), His-tagged

Cat. No. CTH-1333H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CTH protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	CTH (Cystathionine gamma-lyase or cystathionase) belongs to the trans-sulfuration enzymes family. This protein is an enzyme which breaks down cystathionine into cysteine and alpha-ketobutyrate. CTH catalyzes the last step in the transsulfuration pathway from methionine to cysteine.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 2 mM DTT, 10% glycerol, 100 mM NaCl.
Molecular Weight	46.7 kDa (425 aa), confirmed by MALDI-TOF
Purity	> 95 % by SDS-PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MQEKDASSQG FLPHFQHFAT QAIHVGQDPE QWTSRAVVPP ISLSTTFKQG APGQHSGFEY SRSGNPTRNC LEKAVAALDG AKYCLAFASG LAATVTITHL LKAGDQIICM DDVYGGTNRV FRQVASEFGL

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KISFVDCSKI KLEEAITPE TKLVWIETPT NPTQKVIDIE GCAHIVHKHG
 DIILVVDNTF MSPYFQRPLA LGADISMYSY TKYMNHSDV VMGLVSVNCE
 SLHNRLRFLQ NSLGAVPSPI DCYLCNRGLK TLHVRMEKHF KNGMAVAQFL
 ESNPWVEKVI YPGLPSPHQH ELVKRQCTGC TGMVTFYIKG TLQHAEIFLK
 NLKLFTLAES LGGFESLAEL PAIMTHASVL KNDRDVLGIS DTLIRLSVGL
 EDEEDLLEDL DQALKAAHPP SGSHS

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Cysteine and methionine metabolism; Glycine; L-cysteine degradation II; Metabolic pathways; Nitrogen metabolism; Selenium Pathway; Selenocompound metabolism; cysteine biosynthesis II; glutathione-mediated detoxification; homocysteine degradation I

GENE INFORMATION

Gene Name

[CTH cystathionase \(cystathionine gamma-lyase\) \[Homo sapiens \]](#)

Official Symbol

[CTH](#)

Synonyms

CTH; cystathionase (cystathionine gamma-lyase); MGC9471; cystathionine gamma-lyase; OTTHUMP00000010945; OTTHUMP00000010946; gamma-cystathionase; homoserine deaminase; cysteine desulfhydrase; homoserine dehydratase; EC=4.4.1.1

Gene ID

[1491](#)

mRNA Refseq

[NM_001190463](#)

Protein Refseq

[NP_001177392](#)

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MIM	607657
UniProt ID	P32929
Chromosome Location	1p31.1
Function	L-cysteine desulfhydrase activity; cystathionine beta-lyase activity; cystathionine gamma-lyase activity; lyase activity; pyridoxal phosphate binding

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