



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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## CTH monoclonal antibody (M01), clone 4E1-1B7

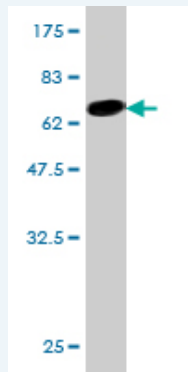
Catalog # : H00001491-M01

規格 : [ 100 ug ]

List All

### Specification

<b>Product Description:</b>	Mouse monoclonal antibody raised against a full length recombinant CTH.
<b>Immunogen:</b>	CTH (AAH15807, 1 a.a. ~ 405 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
<b>Sequence:</b>	MQEKDASSQGFLPHFQHFATQAIHVGQDPEQWTSRAVVPPISLSTTFK QGAPGQHSQFEYSRSGNPTRNCLEKAVAALDGAKYCLAFASGLAATVTI THLLKAGDQIICMDDVYGGTNRVYFRQVASEFGLKISFVDCSKIKLLEAAIT PETKLVWIETPTNPTQKVIDIEGCAHIVHKHGDILVDNTFMSPYFQRPLA LGADISMYSATKYMNGRSDVVMGLVSVNCESLHNRLRFLQNSLGAVPSP DCYLCNRGLKTLHVRMEKHFKNMVAQAQFLESNPWVEKVIYPGLPSHPQ HELVKRQCTGCTGMVTFYIKGTLQHAEIFLKNLKLFTLAESLGGFESLAE LPAIMTHASVLKNDRDVLGISDTLIRLSVGLLEDEEDLLEDLDQALKAHPP SGSHS
<b>Host:</b>	Mouse
<b>Reactivity:</b>	Guinea pig, Human
<b>Isotype:</b>	IgG1 Kappa
<b>Quality Control Testing:</b>	Antibody Reactive Against Recombinant Protein.



Western Blot detection against Immunogen (70.07 KDa) .

**Storage Buffer:** In 1x PBS, pH 7.4

**Storage Instruction:** Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**MSDS:** [Download](#)

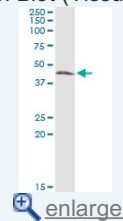
**Datasheet:** [Download](#)

### Publication Reference

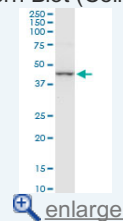
1. [Homocysteine Triggers Inflammatory Responses in Macrophages through Inhibiting CSE-H2S Signaling via DNA Hypermethylation of CSE Promoter.](#)  
Li JJ, Li Q, Du HP, Wang YL, You SJ, Wang F, Xu XS, Cheng J, Cao YJ, Liu CF, Hu LF. *Int. J. Mol. Sci.* 2015; 16:12560-77

### Application Image

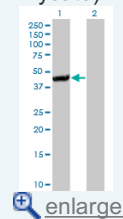
Western Blot (Tissue lysate)



Western Blot (Cell lysate)

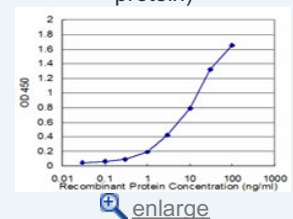


Western Blot (Transfected lysate)



Western Blot (Recombinant protein)

Sandwich ELISA (Recombinant protein)



ELISA

2. Statins upregulate cystathionine  $\gamma$ -lyase transcription and H<sub>2</sub>S generation via activating Akt signaling in macrophage.  
Xu Y, Du HP, Li J, Xu R, Wang YL, You SJ, Liu H, Wang F, Cao YJ, Liu CF, Hu LF. *Pharmacol Res.* 2014 Jun 18. pii: S1043-6618(14)00098-X.
3. Reactive cysteine persulfides and S-polythiolation regulate oxidative stress and redox signaling.  
Iida T, Sawa T, Ihara H, Tsuchiya Y, Watanabe Y, Kumagai Y, Suematsu M, Motohashi H, Fujii S, Matsunaga T, Yamamoto M, Ono K, Devarie-Baez NO, Xian M, Fukuto JM, Akaike T. *Proc Natl Acad Sci U S A.* 2014 May 27;111(21):7606-11. doi: 10.1073/pnas.1321232111. Epub 2014 Apr 14.
4. Inhibition of hydrogen sulfide production by gene silencing attenuates inflammatory activity of LPS-activated RAW264.7 cells.  
Badiei A, Rivers-Auty J, Ang AD, Bhatia M. *Appl Microbiol Biotechnol.* 2013 Jul 10.
5. Decreased Endogenous Production of Hydrogen Sulfide Accelerates Atherosclerosis.  
Mani S, Li H, Untereiner A, Wu L, Yang G, Austin RC, Dickhout JD, Lhotak S, Meng QH, Wang R. *Circulation.* 2013 May 23.
6. Hydrogen sulfide protects against cellular senescence via S-sulfhydration of Keap1 and activation of Nrf2.  
Yang G, Zhao K, Ju Y, Mani S, Cao Q, Puukila S, Khaper N, Wu L, Wang R. *Antioxid Redox Signal.* 2013 May 20;18(15):1906-19. doi: 10.1089/ars.2012.4645. Epub 2013 Feb 7.
7. Is cystathionine gamma-lyase protein expressed in the heart?  
Fu M, Zhang W, Yang G, Wang R. *Biochem Biophys Res Commun.* 2012 Oct 30. doi:pii: S0006-291X(12)02076-1. 10.1016/j.bbrc.2012.10.084. [Epub ahead of print]
8. Hydrogen Sulfide Inhibits the Translational Expression of Hypoxia-inducible Factor-1 $\alpha$ .  
Wu B, Teng H, Yang G, Wu L, Wang R. *Br J Pharmacol.* 2012 Jul 25. doi: 10.1111/j.1476-5381.2012.02113.x.
9. Hydrogen sulfide and resolution of acute inflammation: A comparative study utilizing a novel fluorescent probe.  
Dufton N, Natividad J, Verdu EF, Wallace JL. *Sci Rep.* 2012;2:499. Epub 2012 Jul 9.
10. Hydrogen sulfide producing enzymes in pregnancy and preeclampsia.  
Holwerda KM, Bos EM, Rajakumar A, Ris-Stalpers C, van Pampus MG, Timmer A, Erwich JJ, Faas MM, van Goor H, Lely AT. *Placenta.* 2012 Mar 3. [Epub ahead of print]
11. Increased neointimal formation in cystathionine gamma-lyase deficient mice: Role of hydrogen sulfide in  $\alpha$ 5 $\beta$ 1-integrin and matrix metalloproteinase-2 expression in smooth muscle cells.  
Yang G, Li H, Tang G, Wu L, Zhao K, Cao Q, Xu C, Wang R. *J Mol Cell Cardiol.* 2011 Dec 19.
12. MicroRNA-21 represses human cystathionine gamma-lyase expression by targeting at specificity protein-1 in smooth muscle cells.  
Yang G, Pei Y, Cao Q, Wang R. *J Cell Physiol.* 2011 Oct 27. doi: 10.1002/jcp.24006. [Epub ahead of print]
13. Protective Role of Hydrogen Sulfide against Noise-Induced Cochlear Damage: A Chronic Intracochlear Infusion Model.  
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Yang G, Pei Y, Teng H, Cao Q, Wang R. *J Biol Chem.* 2011 Jun 9. [Epub ahead of print]
15. Hydrogen Sulfide Modulates Contractile Function in Rat Jejunum.  
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19. Hydrogen sulfide protects rat lung from ischemia-reperfusion injury.

Fua Z, Liua X, Geng B, Fanga L, Tang C. Life Sci. 2008 Jun 6;82(23-24):1196-1202. Epub 2008 May 15.

20. Hydrogen sulfide enhances ulcer healing in rats.

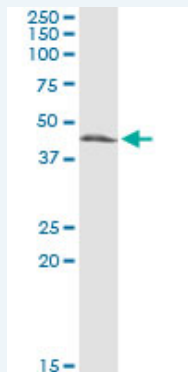
Wallace JL, Dickey M, McKnight W, Martin GR. FASEB J. 2007 Dec;21(14):4070-6. Epub 2007 Jul 18.

21. Hydrogen sulfide is a novel prosecretory neuromodulator in the Guinea-pig and human colon.

Schicho R, Krueger D, Zeller F, Von Weyhern CW, Frieling T, Kimura H, Ishii I, De Giorgio R, Campi B, Schemann M. Gastroenterology. 2006 Nov;131(5):1542-52. Epub 2006 Aug 18.

## Applications

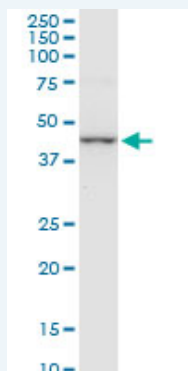
### Western Blot (Tissue lysate)



CTH monoclonal antibody (M01), clone 4E1-1B7. Western Blot analysis of CTH expression in human liver.

 [Protocol Download](#)

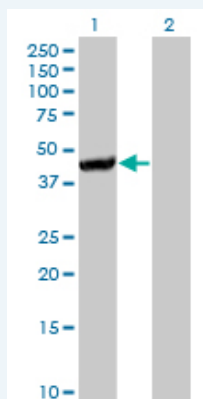
### Western Blot (Cell lysate)



CTH monoclonal antibody (M01), clone 4E1-1B7. Western Blot analysis of CTH expression in Hela S3 NE.

 [Protocol Download](#)

### Western Blot (Transfected lysate)



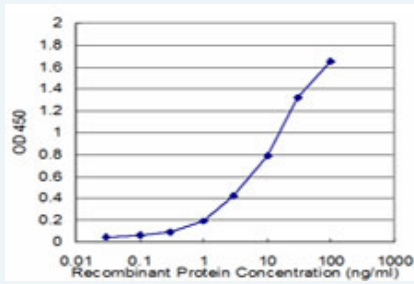
Western Blot analysis of CTH expression in transfected 293T cell line by CTH monoclonal antibody (M01), clone 4E1-1B7.

Lane 1: CTH transfected lysate (Predicted MW: 44.5 kDa).

Lane 2: Non-transfected lysate.

**Western Blot (Recombinant protein)**

**Sandwich ELISA (Recombinant protein)**



Detection limit for recombinant GST tagged CTH is approximately 1ng/ml as a capture antibody.

**ELISA**

**Gene Information**

Entrez GeneID: [1491](#)

GeneBank [BC015807](#)

Accession#:

Protein [AAH15807](#)

Accession#:

Gene Name: CTH

Gene Alias: MGC9471

Gene Description: cystathionase (cystathionine gamma-lyase)

Description:

Omim ID: [219500](#), [607657](#)

Gene Ontology: [Hyperlink](#)

**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 two transcript variants encoding different isoforms. [provided by RefSeq]

**Other Designations:** OTTHUMP00000010945, OTTHUMP00000010946, cystathionase, cysteine desulfhydrase, gamma-cystathionase, homoserine deaminase, homoserine dehydratase

**Gene Pathway**

[Cysteine and methionine metabolism](#) [Glycine, serine and threonine metabolism](#)  
[Metabolic pathways](#) [Nitrogen metabolism](#) [Selenoamino acid metabolism](#)

**Related Disease**

[Atherosclerosis](#) [Atherosclerosis Calcinosi](#) [Cardiovascular Diseases](#) [Carotid Stenosis](#)  
[Cleft Lip](#) [Cleft Palate](#) [Coronary Artery Disease](#) [Diabetes Mellitus, Type 2](#) [Edema](#)  
[Genetic Predisposition to Disease](#) [Hypertension](#) [Infertility, Female](#) [Lung Neoplasms](#)  
[Pulmonary Disease, Chronic Obstructive](#) [Spinal Dysraphism](#) [Urinary Bladder Neoplasms](#)  
[Werner syndrome](#)

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