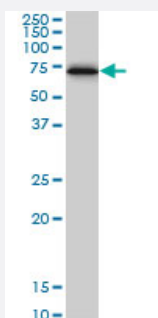


CBS monoclonal antibody (M01), clone 3E1

Catalog # H00000875-M01

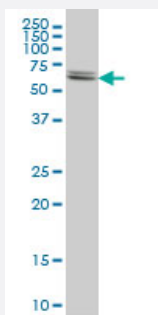
Size 50 ug

Applications



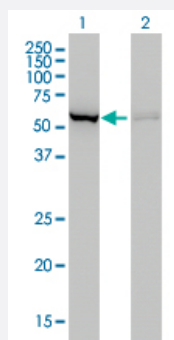
Western Blot (Cell lysate)

CBS monoclonal antibody (M01), clone 3E1. Western Blot analysis of CBS expression in MCF-7 (Cat # L046V1).



Western Blot (Cell lysate)

CBS monoclonal antibody (M01), clone 3E1 Western Blot analysis of CBS expression in HeLa (Cat # L013V1).

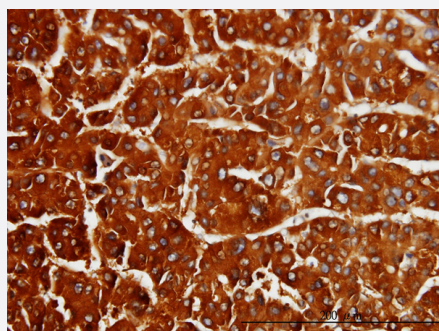


Western Blot (Transfected lysate)

Western Blot analysis of CBS expression in transfected 293T cell line by CBS monoclonal antibody (M01), clone 3E1.

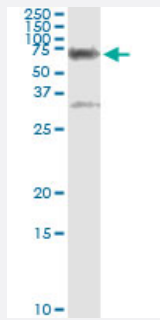
Lane 1: CBS transfected lysate(61 KDa).

Lane 2: Non-transfected lysate.



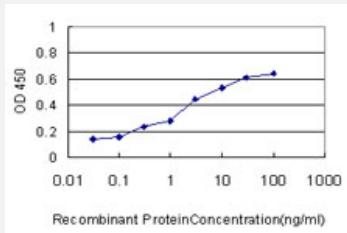
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to CBS on formalin-fixed paraffin-embedded human hepatocellular carcinoma. [antibody concentration 3 ug/ml]



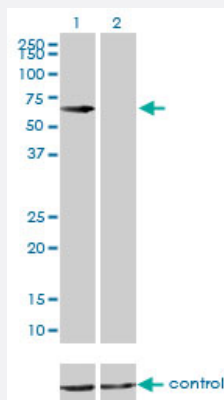
Immunoprecipitation

Immunoprecipitation of CBS transfected lysate using anti-CBS monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with CBS MaxPab rabbit polyclonal antibody.



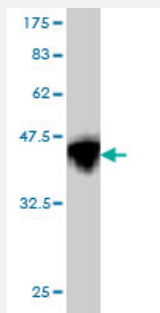
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged CBS is approximately 0.1ng/ml as a capture antibody.



RNAi Knockdown (Antibody validated)

Western blot analysis of CBS over-expressed 293 cell line, cotransfected with CBS Validated Chimera RNAi (Cat # H00000875-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with CBS monoclonal antibody (M01), clone 3E1 (Cat # H00000875-M01). GAPDH (36.1 kDa) used as specificity and loading control.



Western Blot detection against Immunogen (36.74 KDa) .

Specification

Product Description

Mouse monoclonal antibody raised against a partial recombinant CBS.

Immunogen

CBS (NP_000062, 1 a.a. ~ 100 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Sequence	MPSETPQAEVGPTGCPHRSGPHSAKGSLEKGSPEDKEAKEPLWIRPDAPSRCTWQLGRPASE SPHHHTAPAKSPKILPDILKKIGDTPMVRINKIGKKFG
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (61); Rat (63)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

CBS monoclonal antibody (M01), clone 3E1. Western Blot analysis of CBS expression in MCF-7 (Cat # L046V1).

[Protocol Download](#)

- Western Blot (Cell lysate)

CBS monoclonal antibody (M01), clone 3E1 Western Blot analysis of CBS expression in HeLa (Cat # L013V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of CBS expression in transfected 293T cell line by CBS monoclonal antibody (M01), clone 3E1.

Lane 1: CBS transfected lysate(61 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to CBS on formalin-fixed paraffin-embedded human hepatocellular carcinoma.
[antibody concentration 3 ug/ml]

[Protocol Download](#)

- Immunoprecipitation

Immunoprecipitation of CBS transfected lysate using anti-CBS monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with CBS MaxPab rabbit polyclonal antibody.

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged CBS is approximately 0.1ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- RNAi Knockdown (Antibody validated)

Western blot analysis of CBS over-expressed 293 cell line, cotransfected with CBS Validated Chimera RNAi (Cat # H00000875-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with CBS monoclonal antibody (M01), clone 3E1 (Cat # H00000875-M01). GAPDH (36.1 kDa) used as specificity and loading control.

[Protocol Download](#)

Gene Info — CBS

Entrez GeneID	875
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GeneBank Accession#	NM_000071
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Protein Accession#	NP_000062
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Gene Name	CBS
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Gene Alias	HIP4
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Gene Description	cystathionine-beta-synthase
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Omim ID	236200
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Gene Ontology	Hyperlink
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Gene Summary

The protein encoded by this gene acts as a homotetramer to catalyze the conversion of homocysteine to cystathionine, the first step in the transsulfuration pathway. The encoded protein is allosterically activated by adenosyl-methionine and uses pyridoxal phosphate as a cofactor. Defects in this gene can cause cystathionine beta-synthase deficiency (CBS), which can lead to homocystinuria. [provided by RefSeq]

Other Designations

OTTHUMP00000109416|OTTHUMP00000109418|beta-thionase|cystathionine beta-synthase|methionine cystathionine synthase|serine sulfhydrase

Publication Reference

- [Hypoxia-Induced Changes in L-Cysteine Metabolism and Antioxidative Processes in Melanoma Cells.](#)

Leszek Rydz, Maria Wróbel, Klaudia Janik, Halina Jurkowska.

Biomolecules 2023 Oct; 13(10):1491.

Application: WB, Human, WM115 and WM266-4 cells

- [Protection by Means of Perinatal Oral Sodium Thiosulfate Administration against Offspring Hypertension in a Rat Model of Maternal Chronic Kidney Disease.](#)

You-Lin Tain, Chih-Yao Hou, Guo-Ping Chang-Chien, Sufan Lin, Chien-Ning Hsu.

Antioxidants 2023 Jun; 12(7):1344.

Application: WB, Rat, Rat renal cortex

- [Synthesis of Sulfides and Persulfides Is Not Impeded by Disruption of Three Canonical Enzymes in Sulfur Metabolism.](#)

Qamarul Hafiz Zainol Abidin, Tomoaki Ida, Masanobu Morita, Tetsuro Matsunaga, Akira Nishimura, Minkyung Jung, Naim Hassan, Tsuyoshi Takata, Isao Ishii, Warren Kruger, Rui Wang, Hozumi Motohashi, Masato Tsutsui, Takaaki Akaike.

Antioxidants 2023 Apr; 12(4):868.

Application: WB-Ti, Mouse, Mouse brain

- [Effects of dietary restriction on hepatic sulfur-containing amino acid metabolism and its significance in acetaminophen-induced liver injury.](#)

Doyoung Kwon, Seung Won Son, Sou Hyun Kim, Ji Eun Bae, Yun-Hee Lee, Young-Suk Jung.

The Journal of Nutritional Biochemistry 2022 Jun; 108:109082.

Application: WB, Mouse, Liver tissue

- [Sulfurtransferases and Cystathionine Beta-Synthase Expression in Different Human Leukemia Cell Lines.](#)

Halina Jurkowska, Maria Wróbel, Ewa Jasek-Gajda, Leszek Rydz.

Biomolecules 2022 Jan; 12(2):148.

Application: WB-Ce, Human, DND-41, K562, MOLM-14, MOLT-4, MV4-11, REH cells

- [Highly recurrent CBS epimutations in gastric cancer CpG island methylator phenotypes and inflammation.](#)

Nisha Padmanabhan, Huang Kie Kyon, Arnoud Boot, Kevin Lim, Supriya Srivastava, Shuwen Chen, Zhiyuan Wu, Hyung-O K Lee, Vineeth T Mukundan, Charlene Chan, Yarn Kit Chan, Ong Xuwen, Jason J Pitt, Zul Fazreen Adam Isa, Manjie Xing, Ming Hui Lee, Angie Lay Keng Tan, Shamaine Ho Wei Ting, Micah A Luftig, Dennis Kappei, Warren D Kruger, Jinsong Bian, Ying Swan Ho, Ming Teh, Steve George Rozen, Patrick Tan.

Genome Biology 2021 Jun; 22(1):167.

Application: IHC, WB-Ce, WB-Tr, Human, GES1, HFE145 cells, Human gastric adenocarcinomas, Human stomach, IM95, NCC24, NCC59, NUGC3, SNU16, SNU484, SNU719, SNU1750, YCC10 cells

- [Exercise Training Promotes Cardiac Hydrogen Sulfide Biosynthesis and Mitigates Pyroptosis to Prevent High-Fat Diet-Induced Diabetic Cardiomyopathy.](#)

Kar S, Shahshahan HR, Hackfort BT, Yadav SK, Yadav R, Kambis TN, Lefer DJ, Mishra PK.

Antioxidants 2019 Dec; 8(12):638.

Application: WB-Ti, Mouse, Heart

- [Shear stress regulates cystathionine \$\gamma\$ lyase expression to preserve endothelial redox balance and reduce membrane lipid peroxidation.](#)

Bibli SI, Hu J, Leisegang MS, Wittig J, Zukunft S, Kapasakalidi A, Fisslthaler B, Tsilimigras D, Zografos G, Filis K, Brandes RP, Papapetropoulos A, Sigala F, Fleming I.

Redox Biology 2020 Jan; 28:101379.

Application: WB-Ce, WB-Tr, Human, Human endothelial cells

- [The gasotransmitter hydrogen sulfide inhibits transepithelial anion secretion of pregnant mouse endometrial epithelium.](#)

Xu JW, Gao DD, Peng L, Qiu ZE, Ke LJ, Zhu YX, Zhang YL, Zhou WL.

Nitric Oxide : Biology and Chemistry 2019 Sep; 90:37.

Application: WB-Ti, Mouse, Mouse uterus

- [A pharmacological probe identifies cystathionine \$\beta\$ -synthase as a new negative regulator for ferroptosis.](#)

Wang L, Cai H, Hu Y, Liu F, Huang S, Zhou Y, Yu J, Xu J, Wu F.

Cell Death & Disease 2018 Sep; 9(10):1005.

Application: IF, WB-Tr, Human, HEK 293T, HepG2 cells

- [A selective and sensitive method for quantification of endogenous polysulfide production in biological samples.](#)

Bibli SI, Luck B, Zukunft S, Wittig J, Chen W, Xian M, Papapetropoulos A, Hu J, Fleming I.

Redox Biology 2018 Sep; 18:295.

Application: WB, Human, Mouse, HEK 293 cells, Human endothelial cells, platelets, Mouse endothelial cells, tissues

- [Downregulation of Glutathione Biosynthesis Contributes to Oxidative Stress and Liver Dysfunction in Acute Kidney Injury.](#)

Yue Shang Y, Siow YL, Isaak CK, Karmin O.

Oxidative Medicine and Cellular Longevity 2016 Oct; 2016:9707292.

Application: WB-Ti, Rat, Rat liver

- [Endogenous Hydrogen Sulfide Enhances Cell Proliferation of Human Gastric Cancer AGS Cells.](#)

Sekiguchi F, Sekimoto T, Ogura A, Kawabata A.

Biological & Pharmaceutical Bulletin 2016 May; 39(5):887.

Application: WB-Ce, WB-Ti, Human, Mouse, AGS cells, Liver

- [Maternal N-acetylcysteine therapy regulates hydrogen sulfide-generating pathway and prevents programmed hypertension in male offspring exposed to prenatal dexamethasone and postnatal high-fat diet.](#)

Tai I, Sheen J, Lin Y, Yu H, Tiao M, Chen C, Huang L, Tain Y.

Amino Acids 2015 Dec; 53:6.

Application: WB-Ti, Rat, Rat kidney

- [TLR4 upregulates CBS expression through NF- \$\kappa\$ B activation in a rat model of irritable bowel syndrome with chronic visceral hypersensitivity.](#)

Yuan B, Tang WH, Lu LJ, Zhou Y, Zhu HY, Zhou YL, Zhang HH, Hu CY, Xu GY.

World Journal of Gastroenterology 2015 Jul; 21(28):8615.

Application: IF, WB, Rat, Dorsal root ganglia

- [Impacts of CD44 knockdown in cancer cells on tumor and host metabolic systems revealed by quantitative imaging mass spectrometry.](#)

Ohmura M, Hishiki T, Yamamoto T, Nakanishi T, Kubo A, Tsuchihashi K, Tamada M, Toue S, Kabe Y, Saya H, Suematsu M.

Nitric Oxide : Biology and Chemistry 2015 Apr; 46:102.

Application: WB, Human, HCT116 cells

- [Downregulation of cystathionine \$\beta\$ -synthase/hydrogen sulfide contributes to rotenone-induced microglia polarization toward M1 type.](#)

Du C, Jin M, Hong Y, Li Q, Wang XH, Xu JM, Wang F, Zhang Y, Jia J, Liu CF, Hu LF.

Biochemical and Biophysical Research Communications 2014 Aug; 451(2):239.

Application: IF, WB-Ce, WB-Tr, Mouse, Microglia cells

- [Decreased Expression of Cystathionine \$\beta\$ -Synthase Promotes Glioma Tumorigenesis.](#)

Takano N, Sarfraz Y, Gilkes DM, Chaturvedi P, Xiang L, Suematsu M, Zagzag D, Semenza GL.

Molecular Cancer Research 2014 Oct; 12(10):1398.

Application: WB-Tr, Human, U87-MG cells

- [Reactive cysteine persulfides and S-polythiolation regulate oxidative stress and redox signaling.](#)

Ida 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.

PNAS 2014 May; 111(21):7606.

Application: WB-Tr, Human, A549 cells

- [Contribution of cysteine aminotransferase and mercaptopyruvate sulfurtransferase to hydrogen sulfide production in peripheral neurons.](#)

Miyamoto R, Otsuguro K, Yamaguchi S, Ito S.

Journal of Neurochemistry 2014 Jul; 130(1):29.

Application: WB, Rat, PC12 cells, neuron

- [Reduced methylation of PFKFB3 in cancer cells shunts glucose towards the pentose phosphate pathway.](#)

Yamamoto T, Takano N, Ishiwata K, Ohmura M, Nagahata Y, Matsuura T, Kamata A, Sakamoto K, Nakanishi T, Kubo A, Hishiki T, Suematsu M.

Nature Communications 2014 Mar; 5:3480.

Application: WB-Tr, Human, U937, HCT116 cells

- [Hypoxia-inducible factors regulate human and rat cystathionine \$\beta\$ -synthase gene expression.](#)

Takano N, Peng YJ, Kumar GK, Luo W, Hu H, Shimoda LA, Suematsu M, Prabhakar NR, Semenza GL.

The Biochemical Journal 2014 Mar; 458(2):203.

Application: WB, Human, Rat, Cerebral cortex, U87-MG cells

- [Hydrogen sulfide attenuates opioid dependence by suppression of adenylate cyclase/cAMP pathway.](#)

Yang HY, Wu ZY, Wood M, Whiteman M, Bian JS.

Antioxidants & Redox Signaling 2014 Jan; 20(1):31.

Application: WB-Tr, Human, SH-SY5Y cells

- [Sensitization of sodium channels by cystathionine \$\beta\$ -synthetase activation in colon sensory neurons in adult rats with neonatal maternal deprivation.](#)

Hu S, Xu W, Miao X, Gao Y, Zhu L, Zhou Y, Xiao Y, Xu GY.

Experimental Neurology 2013 Oct; 248:275.

Application: IF, Rat, Rat colon sensory neurons

- [High fat diet stimulates hepatic cystathionine \$\beta\$ -synthase and cystathionine \$\gamma\$ -lyase expression.](#)

Hwang SY, Sama LK, Siow YL, O K.

Canadian Journal of Physiology and Pharmacology 2013 Nov; 91(11):913.

Application: WB-Ti, Mouse, Mouse livers

- [Promoted Interaction of Nuclear Factor-kB with Demethylated Cystathionine-beta-Synthetase Gene Contributes to Gastric Hypersensitivity in Diabetic Rats.](#)

Zhang HH, Hu J, Zhou YL, Hu S, Wang YM, Chen W, Xiao Y, Huang LY, Jiang X, Xu GY.

The Journal of Neuroscience 2013 May; 33(21):9028.

Application: IF, Rat, Dorsal root ganglion neurons

- [Hydrogen sulphide-induced relaxation of porcine peripheral bronchioles.](#)

Rashid S, Heer JK, Garle MJ, Alexander SP, Roberts RE.

British Journal of Pharmacology 2013 Apr; 168(8):1902.

Application: WB-Ti, Pig, Rat, Bronchioles, Trachea, Pulmonary artery, Liver

- [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.

Antioxidants & Redox Signaling 2013 May; 18(15):1906.

Application: WB-Ce, Mouse, Human, MEFs, Fibroblast cells

- [Actions of Hydrogen Sulfide and ATP-Sensitive Potassium Channels on Colonic Hypermotility in a Rat Model of Chronic Stress.](#)

Liu Y, Luo H, Liang C, Xia H, Xu W, Chen J, Chen M.

PLoS One 2013 Feb; 8(2):e55853.

Application: IHC, WB, Rat, Rat colonic tissue

- [Electroacupuncture suppresses mechanical allodynia and nuclear factor \$\kappa\$ B signaling in streptozotocin-induced diabetic rats.](#)

Shi L, Zhang HH, Xiao Y, Hu J, Xu GY.

CNS Neuroscience & Therapeutics 2013 Feb; 19(2):83.

Application: WB-Ti, Rat, Dorsal root ganglions

- [Hydrogen sulfide and resolution of acute inflammation: A comparative study utilizing a novel fluorescent probe.](#)

Dufton N, Natividad J, Verdu EF, Wallace JL.

Scientific Reports 2012 Jul; 2:499.

Application: IF, IHC, Human, Human peripheral blood mononuclear cells (PBMC)-derived Macrophages

- [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 Jun; 33(6):518.

Application: IF, WB-Ti, Human, Placentae

- [Homocystinuria in Taiwan: an inordinately high prevalence in an Austronesian aboriginal tribe, Tao.](#)

Lu YH, Huang YH, Cheng LM, Yu HC, Hsu JH, Wu TJ, Lo MY, Lin A, Lin CY, Wu JY, Niu DM.

Molecular Genetics and Metabolism 2012 Apr; 105(4):590.

Application: WB-Tr, Bacteria, Human, Bacteria, HEK 293T cells, Human fibroblasts

- [Characterization of Hydrogen Sulfide and Its Synthases, Cystathionine \$\beta\$ -Synthase and Cystathionine \$\gamma\$ -Lyase, in Human Prostatic Tissue and Cells.](#)

Guo H, Gai JW, Wang Y, Jin HF, Du JB, Jin J.

Urology 2012 Feb; 79(2):483.

Application: IHC-Fr, WB-Ce, Human, Human prostate, LNCaP, PC-3, DU145, RWPE-1 cells

- [Multiple hemodynamic effects of endogenous hydrogen sulfide on central nervous system in rats.](#)

Ren YS, Wu SY, Wang XJ, Yu F, Zhao J, Tang CS, Ouyang JP, Geng B.

Chinese Medical Journal 2011 Nov; 124(21):3468.

Application: WB-Ti, Rat, Cortex, Thalamus

- [Hydrogen Sulfide in the RVLM and PVN has No Effect on Cardiovascular Regulation.](#)

Streeter E, Al-Magableh M, Hart JL, Badoer E.

Frontiers in Physiology 2011 Sep; 2:55.

Application: WB-Ti, Rat, Rat brains

- [Interdependency of Cystathione \$\gamma\$ -Lyase and Cystathione \$\beta\$ -Synthase in Hydrogen Sulfide-Induced Blood Pressure Regulation in Rats.](#)

Roy A, Khan AH, Islam MT, Prieto MC, Majid DS.

American journal of hypertension 2012 Jan; 25(1):74.

Application: IHC-P, WB-Ti, Rat, Rat kidneys

- [Placental markers of folate-related metabolism in preeclampsia.](#)

Mislanova C, Martsenyuk O, Huppertz B, Obolenskaya MY.

Reproduction 2011 Sep; 142(3):467.

Application: WB-Ti, Human, Placenta

- [Hydrogen Sulfide Modulates Contractile Function in Rat Jejunum.](#)

Kasperek MS, Linden DR, Farrugia G, Sarr MG.

The Journal of Surgical Research 2012 Jun; 175(2):234.

Application: IF, Rat, Rat jejunum

- [Carbon monoxide stimulates global protein methylation via its inhibitory action on cystathionine beta-synthase.](#)

Yamamoto T, Takano N, Ishiwata K, Suematsu M.

Journal of Clinical Biochemistry and Nutrition 2011 Jan; 48(1):96.

Application: WB, Human, U937 cells

- [The hydrogen sulfide signaling system: changes during aging and the benefits of caloric restriction.](#)

Predmore BL, Alendy MJ, Ahmed KI, Leeuwenburgh C, Julian D.

Age (Dordrecht, Netherlands) 2010 Dec; 32(4):467.

Application: WB, Rat, Rat aorta and liver

- [A Crucial Role for Hydrogen Sulfide in Oxygen Sensing via Modulating Large Conductance Calcium-Activated Potassium Channels.](#)

Li Q, Sun B, Wang X, Jin Z, Zhou Y, Dong L, Jiang LH, Rong W.

Antioxidants & Redox Signaling 2010 May; 12(10):1179.

Application: IF, IHC-P, Mouse, Mouse carotid body

- [Rescue of cystathionine beta-synthase \(CBS\) mutants with chemical chaperones: purification and characterization of eight CBS mutant enzymes.](#)

Majtan T, Liu L, Carpenter JF, Kraus JP.

The Journal of Biological Chemistry 2010 May; 285(21):15866.

Application: WB-Re, Recombinant protein

- [Actions of hydrogen sulphide on ion transport across rat distal colon.](#)

Hennig B, Diener M.

British Journal of Pharmacology 2009 Sep; 158(5):1263.

Application: IF, IHC, Rat, Rat colon

- [The endogenous hydrogen sulfide producing enzyme cystathionine- \$\gamma\$ -lyase synthase contributes to visceral hypersensitivity in a rat model of irritable bowel syndrome.](#)

Xu GY, Winston JH, Shenoy M, Zhou S, Chen JD, Pasricha PJ.

Molecular Pain 2009 Aug; 5:44.

Application: IF, IHC-Fr, WB-Ti, Rat, Colon, Dorsal root ganglion

- [Astrocytes produce the antiinflammatory and neuroprotective agent hydrogen sulfide.](#)

Lee M, Schwab C, Yu S, McGeer E, McGeer PL.

Neurobiology of Aging 2009 Oct; 30(10):1523.

Application: IHC, WB, Human, Brain, astrocytes, U118, U373, microglia, THP-1, NT-2, SH-SY5Y cells

- [Hydrogen sulphide synthesis in the rat and mouse gastrointestinal tract.](#)

Martin GR, McKnight GW, Dickey MS, Coffin CS, Ferraz JG, Wallace JL.

Digestive and Liver Disease 2010 Feb; 42(2):103.

Application: IHC-P, WB-Ti, Human, Rat, Liver, Brain, Lung, Stomach, Duodenum, Jejunum, Ileum, Colon

- [Endogenous and Exogenous Hydrogen Sulfide Promotes Resolution of Colitis in Rats.](#)

Wallace JL, Vong L, McKnight W, Dickey M, Martin GR.

Gastroenterology 2009 Aug; 137(2):569.

Application: WB, Rat, Colon

- [Active CBS can be expressed in heme-free systems in the presence of metal-substituted porphyrins or a chemical chaperone.](#)

Majtan T, Singh LR, Wang L, Kruger WD, Kraus JP.

The Journal of Biological Chemistry 2008 Oct; 283(50):34588.

Application: WB, Human, Yeast strain WY254 cells

- [Hydrogen sulfide enhances ulcer healing in rats.](#)

Wallace JL, Dickey M, McKnight W, Martin GR.

FASEB Journal 2007 Jul; 21(14):4070.

Application: WB-Ti, Rat, Rat gastric tissue

- [Hydrogen sulfide-induces DNA damage and changes in apoptotic gene expression in human lung fibroblast cells.](#)

Baskar R, Li L, Moore PK.

FASEB Journal 2006 Nov; 21(1):247.

Application: WB, Human, MRC-5, IMR-90, and WI-38 cells

- [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 Aug; 131(5):1542.

Application: IHC, Human, Mouse, Enteric neurons of guinea-pig colon, human colon, and myenteric interstitial cells of Cajal guinea-pig ileum

Pathway

- [Cysteine and methionine metabolism](#)

- [Glycine](#)

- [Metabolic pathways](#)
- [Selenoamino acid metabolism](#)

Disease

- [Abnormalities](#)
- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Aortic Aneurysm](#)
- [Arterial Occlusive Diseases](#)
- [Arteriosclerosis](#)
- [Atherosclerosis](#)
- [Attention](#)
- [Brain Infarction](#)
- [Brain Ischemia](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Calcinosis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Carotid Artery](#)
- [Cerebral Palsy](#)
- [Cerebrovascular Accident](#)
- [Cerebrovascular Disorders](#)
- [Cleft Lip](#)

- [Cleft Palate](#)
- [Cognition](#)
- [Cognition Disorders](#)
- [Colorectal Neoplasms](#)
- [Connective Tissue Diseases](#)
- [Constriction](#)
- [Coronary Artery Disease](#)
- [Coronary Disease](#)
- [Coronary Stenosis](#)
- [Data Display](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Down Syndrome](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Exfoliation Syndrome](#)
- [Fetal Diseases](#)
- [Gastrointestinal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glaucoma](#)
- [Heart Defects](#)
- [Heart Diseases](#)
- [Heart Septal Defects](#)
- [Homocystinuria](#)
- [Huntington disease](#)
- [Hyperhomocysteinemia](#)

- [Hypertension](#)
- [Infection](#)
- [Inflammation](#)
- [Intelligence Tests](#)
- [Intracranial Aneurysm](#)
- [Intracranial Thrombosis](#)
- [Kidney Failure](#)
- [Leukemia](#)
- [Liver Cirrhosis](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Lymphoma](#)
- [Malnutrition](#)
- [Meningioma](#)
- [Mental Retardation](#)
- [Mental Status Schedule](#)
- [Metabolic Diseases](#)
- [Metabolic Syndrome X](#)
- [Microsatellite Instability](#)
- [Migraine Disorders](#)
- [Musculoskeletal Diseases](#)
- [Myocardial Infarction](#)
- [Myocardial Ischemia](#)
- [Neoplasms](#)
- [Neural Tube Defects](#)
- [Neuropsychological Tests](#)

- [Obesity](#)
- [Osteoporosis](#)
- [Parkinson disease](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Psychotic Disorders](#)
- [Pulmonary Disease](#)
- [Recurrence](#)
- [Schizophrenia](#)
- [Schizophrenic Psychology](#)
- [Skin Diseases](#)
- [Spinal Dysraphism](#)
- [Stomach Neoplasms](#)
- [Stroke](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Vascular Diseases](#)
- [Venous Thrombosis](#)
- [Vertebral Artery Dissection](#)
- [Werner syndrome](#)