

Store at
-20°C

Cystathionine γ -Lyase (D1N1D) Rabbit mAb

#19689



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Entrez-Gene ID #1491
UniProt ID #P32929

New 11/17

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
W
Endogenous

Species Cross-Reactivity*
H, M, R

Molecular Wt.
44 kDa

Isotype
Rabbit IgG**

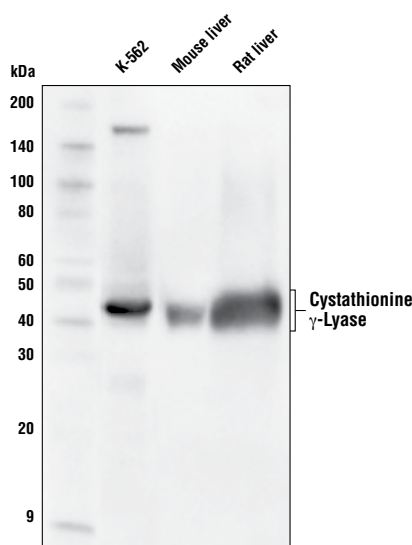
Background: Cystathionine γ -lyase (CGL) is an enzyme in the transsulfuration pathway, a route in the metabolism of sulfur-containing amino acids (1). This enzyme regulates local vasodilation and blood pressure by generating hydrogen sulfide (H_2S) as a physiological signaling molecule (2). A rodent model of sleep apnea showed that H_2S production by cystathionine γ -lyase in the carotid body triggers hypertension in rodents during intermittent hypoxia, suggesting that inhibition of this enzyme may prevent the hypertension associated with sleep apnea (3). In addition, dietary restriction of sulfur-containing amino acids upregulates hepatic cystathionine γ -lyase expression in mice, leading to elevated production of H_2S and protection from hepatic ischemia perfusion injury, indicating that this enzyme is critical for the benefits of dietary restriction (4).

Background References:

- (1) Chiku, T. et al. (2009) *J Biol Chem* 284, 11601-12.
- (2) Yang, G. et al. (2008) *Science* 322, 587-90.
- (3) Yuan, G. et al. (2016) *Sci Signal* 9, ra80.
- (4) Hine, C. et al. (2015) *Cell* 160, 132-44.

Specificity/Sensitivity: Cystathionine γ -Lyase (D1N1D) Rabbit mAb recognizes endogenous levels of total cystathionine γ -lyase protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro298 of human cystathionine γ -lyase protein.



Western blot analysis of extracts from K-562 cells, mouse liver, and rat liver using Cystathionine γ -Lyase (D1N1D) Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween[®]20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.