

Cystathionine γ -Lyase (D4E9J) Rabbit mAb

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Applications: W	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 44	Source/Isotype: Rabbit IgG	UniProt ID: #P32929	Entrez-Gene Id: 1491
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

Cystathionine γ -Lyase (D4E9J) 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 near the amino terminus of human cystathionine γ -lyase protein.

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **Mk:** Monkey

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