

For Research Use Only

CoraLite®594-conjugated Gamma Cystathionase Polyclonal antibody



Catalog Number:CL594-12217

Featured Product

Basic Information

Catalog Number: CL594-12217	GenBank Accession Number: BC015807	Purification Method: Antigen affinity purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 1491	Recommended Dilutions: IF 1:50-1:500
Source: Rabbit	Full Name: cystathionase (cystathionine gamma-lyase)	Excitation/Emission maximum wavelengths: 588 nm / 604 nm
Isotype: IgG	Calculated MW: 405 aa, 45 kDa	
Immunogen Catalog Number: AG2872	Observed MW: 40-45 kDa	

Applications

Tested Applications:
FC (Intra), IF

Species Specificity:
human, mouse, rat

Positive Controls:

IF : human liver cancer tissue,

Background Information

CTH, also named as Gamma-cystathionase and CSE, belongs to the transsulfuration enzymes family. It catalyzes the last step in the transsulfuration pathway from methionine to cysteine. CTH converts two cysteine molecules to lanthionine and hydrogen sulfide. CTH can also accept homocysteine as substrate. Its specificity depends on the levels of the endogenous substrates. CTH is the major H₂S-producing enzyme in kidney, liver, vascular smooth muscle cells and enterocytes. The endogenous production of H₂S plays a significant role in the regulation of cellular functions, including cell growth, hyperpolarization of cell membranes, modulation of neuronal excitability and relaxation of smooth muscle cells. The CSE/H₂S pathway is upregulated in the heart in a murine model of CVB3-induced myocarditis and that inhibition of endogenous H₂S is beneficial to treatment early in the disease while administration of exogenous H₂S is protective to infected myocardium during the later stage. Mutations in the gene encoding CTH can result in the autosomal recessive disease cystathioninuria; a disorder characterized by the unusual accumulation of plasma cystathionine causing increased urinary excretion. Both male and female CTH-null mice showed hypercystathioninemia and hyperhomocysteinemia, but not hypermethioninemia. CSE has also been reported to be expressed in endothelial cells and contribute to endothelium-dependent vasorelaxation. It can be detected a minor 36 kDa band probably representing a degradative intermediate except the major 43 kDa band in vitamin B6-deficient rat liver (PMID:8660672). CTH also can be detected as ~70kD in rat liver (PMID: 18974309). This antibody is a rabbit polyclonal antibody raised against residues near the C terminus of human CTH.

Storage

Storage:

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

Storage Buffer:

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

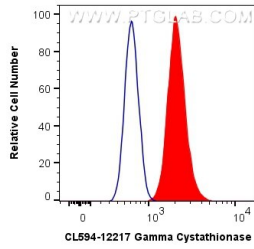
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

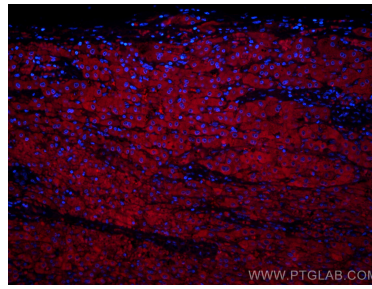
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



1×10^6 MCF-7 cells were intracellularly stained with 0.8 μ g CoraLite®594 Anti-Human Gamma Cystathionase (CL594-12217) (red), or 0.8 μ g Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using CoraLite®594 Gamma Cystathionase antibody (CL594-12217) at dilution of 1:200.