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GCAT Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7498c

Specification

GCAT Antibody (Center) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	O75600
Other Accession	O88986, Q0P5L8
Reactivity	**Human, Mouse**
Predicted	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**45285**
Antigen Region	**155-181**

GCAT Antibody (Center) - Additional Information

Gene ID 23464

Other Names
2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial, AKB ligase, Aminoacetone synthase, Glycine acetyltransferase, GCAT, KBL

Target/Specificity
This GCAT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 155-181 amino acids from the Central region of human GCAT.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GCAT Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

GCAT Antibody (Center) - Protein Information

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Name GCAT (HGNC:4188)

Synonyms KBL

Function Pyridoxal phosphate (PLP) dependent enzyme, which catalyzes the cleavage of 2-amino-3-oxobutanoate to glycine and acetyl-CoA.

Cellular Location
Mitochondrion {ECO:0000250|UniProtKB:Q0P5L8}. Nucleus. Note=Translocates to the nucleus upon cold and osmotic stress.

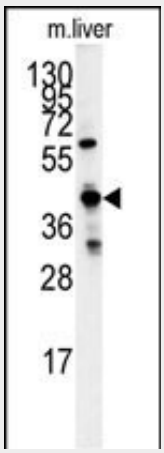
Tissue Location
Strongly expressed in heart, brain, liver and pancreas. Also found in lung.

GCAT Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GCAT Antibody (Center) - Images



Western blot analysis of GCAT antibody (Center) (Cat.#AP7498c) in mouse liver tissue lysates (35ug/lane). GCAT (arrow) was detected using the purified Pab.

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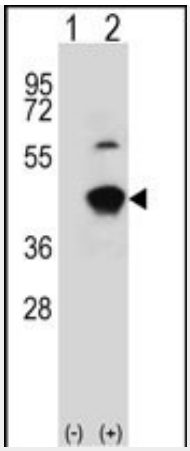
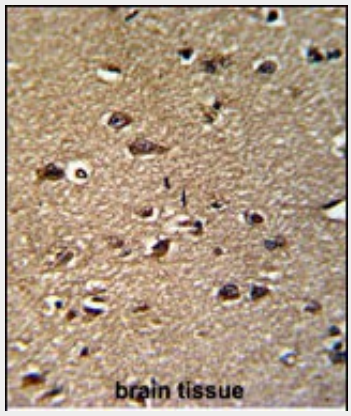
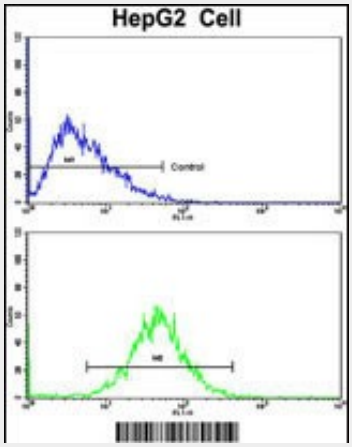


Western blot analysis of GCAT (arrow) using rabbit polyclonal GCAT Antibody (Center) (Cat.#AP7498c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GCAT gene.



Formalin-fixed and paraffin-embedded human brain reacted with GCAT Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of HepG2 cells using GCAT Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

GCAT Antibody (Center) - Background

The degradation of L-threonine to glycine consists of a two-step biochemical pathway involving the enzymes L-threonine dehydrogenase and 2-amino-3-ketobutyrate coenzyme A ligase. L-Threonine is first converted into 2-amino-3-ketobutyrate by L-threonine dehydrogenase. GCAT is the second enzyme in this pathway, which then catalyzes the reaction between 2-amino-3-ketobutyrate and coenzyme A to form glycine and acetyl-CoA. The enzyme is considered a class II pyridoxal-phosphate-dependent aminotransferase.

GCAT Antibody (Center) - References

Edgar,A.J., Polak,J.M.Eur. J. Biochem. 267 (6), 1805-1812 (2000)
Tressel,T., Thompson,R., J. Biol. Chem. 261 (35), 16428-16437 (1986)