For Research Use Only

CAD Polyclonal antibody

Catalog Number:16617-1-AP Featured Product 7 Publications

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Basic Information

Catalog Number:
16617-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG9912

GenBank Accession Number:
BC014178

GeneID (NCBI):
790

UNIPROT ID:
P27708

Full Name:
carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and dihydroorotase

Calculated MW:
2225 aa, 243 kDa

Observed MW:
240 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:1000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF 1:20-1:200

Applications

Tested Applications:
IF/ICC, IHC, IP, WB, ELISA

Cited Applications:
IF, IHC, IP, WB

Species Specificity:
human

Cited Species:
human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HEK-293 cells,

IP : HEK-293 cells,

IHC : human liver cancer tissue, mouse liver tissue

IF : HEK-293 cells,

Background Information

CAD (carbamoyl-phosphate synthetase 2, aspartate transcarbamoylase, and dihydroorotase) is a multifunctional enzyme required for the de novo synthesis of pyrimidine nucleotides (PMID:25422319). CAD initiates and controls the flflux through the pathway and is regulated by allosteric effectors and phosphorylations through different signaling cascades (PMID:12438317). Moreover, CAD is found upregulated in tumors, while mutations that compromise its function are the cause of a severe infantile epileptic disease (PMID:36677714).

Notable Publications

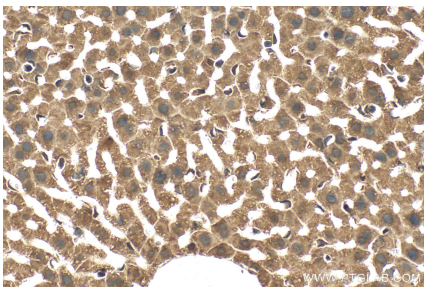
Author	Pubmed ID	Journal	Application
Yihan Zhu	36087034	Cancer Sci	WB
Xiaoxue Song	33206174	Carcinogenesis	WB
Yajing Lv	33186350	PLoS Biol	WB, IHC

Storage

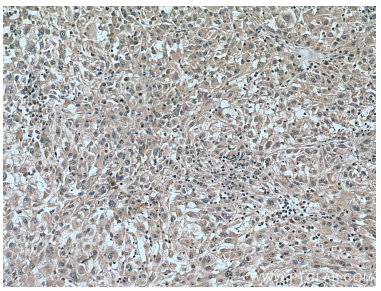
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

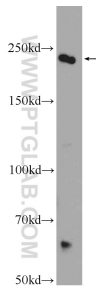
Selected Validation Data



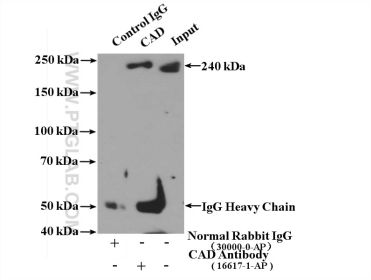
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 16617-1-AP (CAD antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



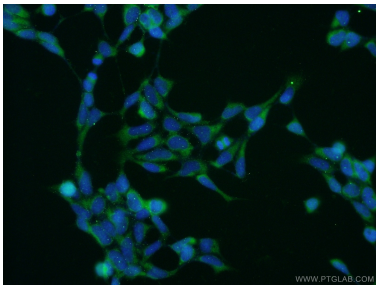
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 16617-1-AP (CAD antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



HEK-293 cells were subjected to SDS PAGE followed by western blot with 16617-1-AP (CAD Antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



IP result of anti-CAD (IP:16617-1-AP, 4ug; Detection:16617-1-AP 1:500) with HEK-293 cells lysate 2800ug.



Immunofluorescent analysis of HEK-293 cells using 16617-1-AP (CAD antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).