Product Name: DPYD Rabbit Polyclonal Antibody
Catalog #: APRab10142
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	120kDa

Antigen Information

Gene Name	DPYD
Alternative Names	DPYD; Dihydropyrimidine dehydrogenase [NADP(+)]; DHPDHase; DPD; Dihydrothymine dehydrogenase; Dihydrouracil dehydrogenase
Gene ID	1806.0
SwissProt ID	Q12882
Immunogen	The antiserum was produced against synthesized peptide derived from the Internal region of human DPYD. AA range:351-400

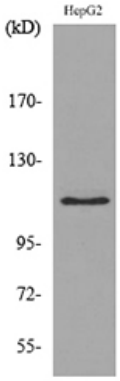
Background

The protein encoded by this gene is a pyrimidine catabolic enzyme and the initial and rate-limiting factor in the pathway of uracil and thymidine catabolism. Mutations in this gene result in dihydropyrimidine dehydrogenase deficiency, an error in pyrimidine metabolism associated with thymine-uraciluria and an increased risk of toxicity in cancer patients receiving 5-fluorouracil chemotherapy. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009],catalytic activity:5,6-dihydrouracil + NADP(+) = uracil + NADPH.,cofactor:Binds 2 4Fe-4S clusters. Contains approximately 33 iron atoms per molecule.,cofactor:Binds 2 FAD.,cofactor:Binds 2 FMN.,disease:Defects in DPYD are the cause of dihydropyrimidine dehydrogenase deficiency (DPYD deficiency) [MIM:274270]; also known as hereditary thymine-uraciluria or familial pyrimidinemia. DPYD deficiency is a disease characterized by persistent urinary excretion of excessive amounts of uracil, thymine and 5-hydroxymethyluracil. Patients suffering from this disease show a severe reaction to the anticancer drug 5-fluorouracil. This reaction includes stomatitis, Leukopenia, thrombocytopenia, hair loss, diarrhea, fever, marked weight loss, cerebellar ataxia, and neurologic symptoms, progressing to semicoma.,function:Involved in pyrimidine base degradation. Catalyzes the reduction of uracil and thymine. Also involved the degradation of the chemotherapeutic drug 5-fluorouracil.,pathway:Amino-acid biosynthesis; beta-alanine biosynthesis.,similarity:Belongs to the dihydropyrimidine dehydrogenase family.,similarity:Contains 3 4Fe-4S ferredoxin-type domains.,subunit:Homodimer.,tissue specificity:Found in most tissues with greatest activity found in liver and peripheral blood mononuclear cells.,

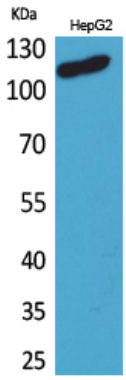
Research Area

Pyrimidine metabolism;beta-Alanine metabolism;Pantothenate and CoA biosynthesis;Drug metabolism;

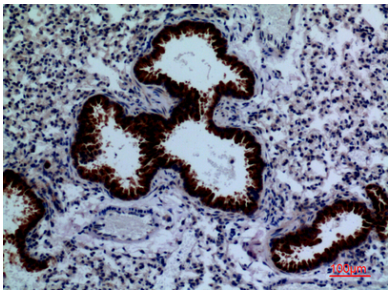
Image Data



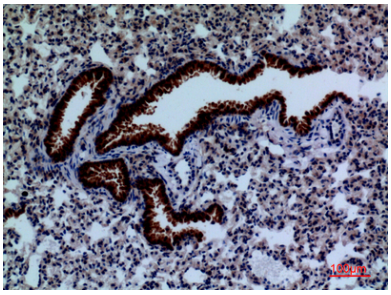
Western blot analysis of lysate from HepG2 cells, using DPYD Antibody.



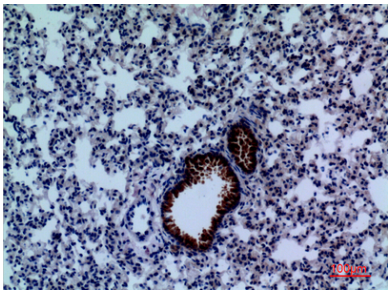
Western Blot analysis of HepG2 cells using DPYD Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded mouse-lung, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded mouse-lung, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded mouse-lung, antibody was diluted at 1:100