Revision 1

Store at -20C

#4654

DPYD (D35A8) Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	110	Rabbit IgG	#Q12882	1806

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DPYD (D35A8) Rabbit mAb detects endogenous levels of total DPYD protein. The antibody also detects a 50-60 kDa band of unknown origin by western blot.

Species predicted to react based on 100% sequence homology

Mouse, Rat, Monkey, Dog

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human DPYD protein.

Background

Dihydropyrimidine dehydrogenase (DPD, DPYD) catalyzes the initial and rate-limiting step in uracil and thymidine catabolism as well as catabolism of the chemotherapeutic drug 5-fluorouracil (5-FU) and its derivatives. DPYD deficiency, which results from mutations in the DPYD gene, causes errors in pyrimidine metabolism and potentially life-threatening side effects in cancer patients treated with 5-FU (reviewed in 1). As a result, ongoing work examines whether or how DPYD gene variation and protein expression can be used to predict 5-FU toxicity (1,2). Several genes that impart resistance to 5-FU were recently identified in human hepatocellular carcinoma (HCC). AEG-1, which is highly expressed in HCC, increases the expression of DPYD. DPYD is expressed more highly in HCC than in normal liver, and this is thought to be one mechanism of 5-FU resistance (3,4).

Background References

1. Yen, J.L. and McLeod, H.L. (2007) *Eur J Cancer* 43, 1011-6.
2. Ofverholm, A. et al. (2010) *Clin Biochem* 43, 331-4.
3. Yoo, B.K. et al. (2009) *Proc Natl Acad Sci U S A* 106, 12938-43.
4. Yoo, B.K. et al. (2009) *J Clin Invest* 119, 465-77.

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

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Limited Uses

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