Revision 1

#4307 Store at -20C

Thymidine Phosphorylase/ECGF1 (D69B12) Rabbit mAb

Cell Signaling TECHNOLOGY®

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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:
WB, IP	H	Endogenous	50	Rabbit	#P19971	1890

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

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

Thymidine Phosphorylase/ECGF1 (D69B12) Rabbit mAb detects endogenous levels of total TP/ECGF1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln370 of human thymidine phosphorylase/ECGF1 protein.

Background

Thymidine phosphorylase (TP) is a platelet-derived endothelial cell growth factor (PD-ECGF) that catalyzes the formation of thymine and 2-deoxy-D-ribose-1-phosphate from thymidine and orthophosphate (1). This intracellular enzyme is capable of both promoting angiogenesis and inhibiting apoptosis. Thymidine phosphorylase catalytic activity is required for its angiogenic function (2,3). Increased expression of TP/PD-ECGF is seen in a wide variety of different solid tumors and inflammatory diseases and is often associated with poor prognosis (4,5). Alternatively, TP can activate fluorouracil derivative (DFUR) prodrugs and increase the antitumor activity of the related treatment (1,5). The use of thymidine phosphorylase as a cancer therapeutic target has been studied extensively, with emphasis on either inhibiting TP enzymatic activity or increasing enzyme induction with concomitant DFUR treatment (1,5).

Background References

1. Rooseboom, M. et al. (2004) *Pharmacol Rev* 56, 53-102.
2. Moghaddam, A. and Bicknell, R. (1992) *Biochemistry* 31, 12141-6.
3. Furukawa, T. et al. (1992) *Nature* 356, 668.
4. Toi, M. et al. (2005) *Lancet Oncol* 6, 158-66.
5. Liekens, S. et al. (2007) *Biochem Pharmacol* 74, 1555-67.

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

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Limited Uses

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