

CDK10 (D8Z7Z) Rabbit mAb

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

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit IgG	UniProt ID: #Q15131	Entrez-Gene Id: 8558
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Product Usage Information**Application**

Western Blotting

Dilution

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

CDK10 (D8Z7Z) Rabbit mAb recognizes endogenous levels of total CDK10 protein. This antibody is not expected to react with CDK10 N-terminal deletion isoforms.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val24 of human CDK10 protein.

Background

Cyclin Dependent Kinase 10 (CDK10) is a Cdc2-related protein kinase that binds to and inhibits the transactivation activity of the transcription factor Ets2 (1). CDK10 is activated by cyclin M, which is mutated and unable to activate CDK10 in the human developmental disorder, STAR syndrome. Phosphorylation of Ets2 by CDK10/Cyclin M leads to degradation of Ets2 by the proteasome (2). CDK10 also plays a role in the development of the zebrafish nervous system (3). Studies have shown that expression of CDK10, which is modulated by promoter hypermethylation, is decreased in human cancer (4-6). Further, studies show that CDK10 expression in breast cancer affects response to tamoxifen (7), and is correlated with disease progression (8). CDK10 regulates the expression of c-RAF, and signaling through the MAPK pathway (2-3, 6-7).

Background References

1. Kasten, M. and Giordano, A. (2001) *Oncogene* 20, 1832-8.
2. Guen, V.J. et al. (2013) *Proc Natl Acad Sci U S A* 110, 19525-30.
3. Yeh, C.W. et al. (2013) *J Biol Chem* 288, 27927-39.
4. You, Y. et al. (2013) *Cell Oncol (Dordr)* 36, 323-31.
5. Zhong, X.Y. et al. (2012) *Gene* 498, 68-74.
6. Yu, J.H. et al. (2012) *Oncol Rep* 27, 1266-76.
7. Iorns, E. et al. (2008) *Cancer Cell* 13, 91-104.
8. You, Y. et al. (2015) *Cell Oncol (Dordr)* 38, 485-91.

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 **M:** Mouse **R:** Rat

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