

Choline Kinase α (D5X9W) Rabbit mAb

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| Applications: W, IP | Reactivity: H Mk | Sensitivity: Endogenous | MW (kDa): 50 | Source/Isotype: Rabbit IgG | UniProt ID: #P35790 | Entrez-Gene Id: 1119 |
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

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

Specificity/Sensitivity

Choline Kinase α (D5X9W) Rabbit mAb recognizes endogenous levels of total choline kinase α protein. Based on the antigen sequence, this antibody is not expected to recognize choline kinase β .

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro85 of human choline kinase α protein.

Background

Choline kinase (ChoK) catalyzes the phosphorylation of choline, a key step in the biosynthesis of the membrane phospholipid phosphatidylcholine. At least three ChoK isoforms exist in mammalian cells, α -1, α -2, and β . The two α isoforms are transcribed from the same *CHKA* gene as splice variants, while the β isoform resides on a separate *CHKB* gene (reviewed in 1).

Research studies indicate that ChoKa levels affect signaling through MAPK and Akt pathways (2,3). Investigators have shown that ChoKa plays a role in proliferation and carcinogenesis and is highly expressed/activated in human cancers (4-7). Additional research studies suggest ChoKa may be a potential target for cancer therapy (8).

Background References

1. Janardhan, S. et al. (2006) *Curr Med Chem* 13, 1169-86.
2. Yalcin, A. et al. (2010) *Oncogene* 29, 139-49.
3. Chua, B.T. et al. (2009) *Mol Cancer* 8, 131.
4. Ramírez de Molina, A. et al. (2002) *Oncogene* 21, 4317-22.
5. Ramírez de Molina, A. et al. (2007) *Lancet Oncol* 8, 889-97.
6. Hernando, E. et al. (2009) *Oncogene* 28, 2425-35.
7. Miyake, T. and Parsons, S.J. (2012) *Oncogene* 31, 1431-41.
8. Bañez-Coronel, M. et al. (2008) *Curr Cancer Drug Targets* 8, 709-19.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **Mk:** Monkey

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