Revision 1

Store at -20C

#20729

MATK/CHK (D2I6U) 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:
W, IP	H	Endogenous	52,56	Rabbit IgG	#P42679	4145

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

MATK/CHK (D2I6U) Rabbit mAb recognizes endogenous levels of total MATK/CHK protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu97 of human MATK/CHK protein.

Background

MATK/CHK (CTK, NTK and HYL) is a non-receptor tyrosine kinase structually and functionally homologous to Csk kinase. The kinase was identified through molecular cloning from multiple tissues by different research groups. Like Csk, MATK/CHK has a N-terminal SH3 domain, followed by an SH2 domain and a C-terminal catalytic kinase domain (1-4). MATK/CHK inhibits Src family members in several different ways. First, it directly phosphorylates the inhibitory C-terminal tyrosine of Src (as well as other Src family members). This induces a Src protein conformational change from the active to inactive state (2,4). Second, it binds directly to activated Src and induces a conformational change to the inactive state (5,6). The SH2 domain of MATK/CHK directly interacts with the phosphorylated tyrosine of activated receptor tyrosine kinases, such as ErbB-2 and c-Kit, to inhibit receptor function (7-9). MATK/CHK negatively regulates tumor cell growth, migration and invasion (10-13). Decreased expression of the protein has been correlated with brain tumors as well as colon cancers in research studies (14-15).

Background References

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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

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