Revision 1

Phospho-TNK1 (Tyr277) Antibody

#4553 Store at -20C

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	H	Endogenous	72 TNK1, 58 TNK1-C17orf61	Rabbit	#Q13470	8711

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 and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-TNK1 (Tyr277) Antibody detects endogenous levels of TNK1 protein only when phosphorylated at Tyr277. This antibody may cross-react with tyrosine phosphorylated EGF receptor.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to the sequence around Tyr277 of human TNK1. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Tyrosine kinase non-receptor 1 (TNK1) is related to the Ack1 (TNK2) non-receptor kinase that binds cdc42 and inhibits GTPase activity of this cell cycle regulator. TNK1 is broadly expressed in embryogenic tissues and leukemia cell lines, but is restricted to select adult tissues (1). TNK1 is a putative 72 kDa protein comprised of an N-terminal kinase domain, a central SH3 domain and a proline-rich tail. Interaction with PLCγ *in vitro* indicates a possible role in phospholipid signal transduction pathways (2). Though the exact mechanism is currently unclear, active TNK1 may play a role in regulating cell death by preventing TNF-α-induced NF-κB transactivation (3).
Phosphorylation of TNK1 on Tyr277 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery (4) and also reported independently in another publication using MS technology (5). Phosphorylation of TNK1 at Tyr277 was observed in select carcinoma cell lines and in tumors. A constitutively active, truncated TNK1 kinase resulting from fusion between the TNK1 and C17orf61 genes is seen in some cells (5). For additional information visit PhosphoSitePlus™, CST's modification site knowledgebase, at www.phosphosite.org.

Background References

1. Hoehn, G.T. et al. (1996) *Oncogene* 12, 903-13.
2. Felschow, D.M. et al. (2000) *Biochem Biophys Res Commun* 273, 294-301.
3. Azoitei, N. et al. (2007) *Oncogene* 26, 6536-45.
4. Rush, J. et al. (2005) *Nat Biotechnol* 23, 94-101.
5. Gu, T.L. et al. (2010) *Leukemia* 24, 861-5.

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

Trademarks and Patents

Limited Uses

force or effect.

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