

# Phospho-TNK1 (Tyr277) Antibody

✓ 100 µl  
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H	72 kDa TNK1, 58 kDa TNK1-C17orf61	Rabbit**

**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).

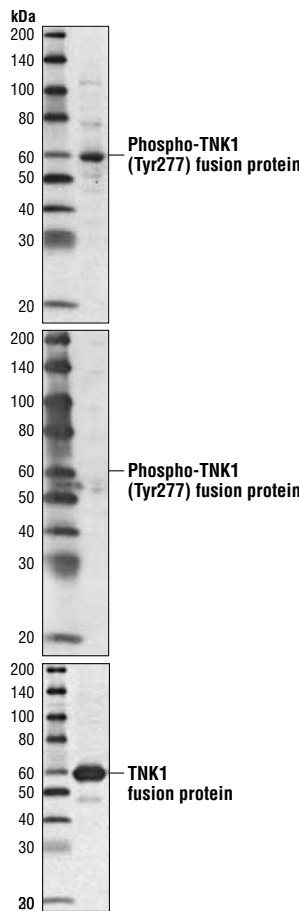
Phosphorylation of TNK1 on Tyr277 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery (4) and also reported independently in another publication using MS technology (5). Phosphorylation of TNK1 at Tyr277 was observed in select 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 Phospho-SitePlus™, CST's modification site knowledgebase, at www.phosphosite.org.

**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 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*, [Epub ahead of print].



Western blot analysis of extracts from L-540 cells using Phospho-TNK1 (Tyr277) Antibody (upper and middle) or TNK1 (C44F9) Rabbit mAb #4570 (lower). The middle membrane was treated with calf intestinal alkaline phosphatase (CIP) before antibody probing. L-540 cells express a 58 kDa TNK1-C17orf61 fusion protein containing 466 amino acids from the amino terminus of TNK1 [Gu, T.L. et al. (2010) *Leukemia*, in press]. TNK1 kinase was constitutively activated in these cells.

Entrez-Gene ID #8711  
Swiss-Prot Acc. #Q13470

**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.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.