

#32712 Store at -20°C

TNIK Antibody

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	180	Rabbit	#Q9UKE5	23043

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:50

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

TNIK Antibody recognizes endogenous levels of total TNK protein.

Species predicted to react based on 100% sequence homology:

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg567 of human TNK protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

TNIK (Traf2 and Nck-Interacting Kinase) is a member of the germinal center kinase (GCK) family (1). TNK phosphorylates TCF4 and is an essential activator for Wnt signaling (2). Animal knockout model and kinase inhibition studies have reported that TNK can stimulate both cancer cell growth and epithelial-mesenchymal transition (EMT) (3-5). TNK has also been shown to promote F-actin disruption through its interactions with Rap2 (6). In neuronal cells, TNK is enriched in the postsynaptic density (PSD), where it is reported to modulate neuronal receptor surface expression, dendrite complexity and signaling (7-9).

Background References

1. Fu, C.A. et al. (1999) *J Biol Chem* 274, 30729-37.
2. Mahmoudi, T. et al. (2009) *EMBO J* 28, 3329-40.
3. Masuda, M. et al. (2016) *Nat Commun* 7, 12586.
4. Kim, J. et al. (2014) *PLoS One* 9, e110180.
5. Shitashige, M. et al. (2010) *Cancer Res* 70, 5024-33.
6. Taira, K. et al. (2004) *J Biol Chem* 279, 49488-96.
7. Hussain, N.K. et al. (2010) *J Neurosci* 30, 14786-94.
8. Coba, M.P. et al. (2012) *J Neurosci* 32, 13987-99.
9. Larhammar, M. et al. (2017) *J Neurosci* 37, 11074-11084.

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

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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