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TANK Antibody

Store at -20C
#2141

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

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 50	Source/Isotype: Rabbit	UniProt ID: #Q92844	Entrez-Gene Id: 10010
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
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

TANK Antibody detects endogenous levels of total TANK protein. It does not cross react with other TRAF family members.

Species predicted to react based on 100% sequence homology

Monkey, Bovine, Dog

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser357 of human TANK. Antibodies are purified by protein A and peptide affinity chromatography.

Background

TRAFs (TNF receptor-associated factors) are a family of multifunctional adaptor proteins that bind to surface receptors and recruit additional proteins to form multiprotein signaling complexes capable of promoting cellular responses (1-3). Members of the TRAF family share a common carboxy-terminal "TRAF domain", which mediates interactions with associated proteins; many also contain amino-terminal Zinc/RING finger motifs. The first TRAFs identified, TRAF1 and TRAF2, were found by virtue of their interactions with the cytoplasmic domain of TNF-receptor 2 (TNFR2) (4). The six known TRAFs (TRAF1-6) act as adaptor proteins for a wide range of cell surface receptors and participate in the regulation of cell survival, proliferation, differentiation, and stress responses. TRAF-associated NF-κB activator (TANK), also known as TRAF-interacting protein (I-TRAF), is a TRAF binding protein that demonstrates both stimulatory and inhibitory properties (5,6). TANK binds to the carboxy domain of the TRAF1, -2 and -3. Overexpression of TANK prevents the association of TRAF2 with TNFR2, inhibiting TNFR2 and CD40 induced NF-κB activation (6). TANK is also reported to synergize with low levels of TRAF2 to activate NF-κB (5). TANK assists in the activation of NF-κB via association and activation of TANK-binding kinase 1 (TBK1) or IKKε which promotes activation of the IKK complex (7,8). It has also been shown that TANK may synergize with TRAF2, TRAF5, and TRAF6 but not TRAF3 in SAPK activation (9). TNFα stimulation results in IKKβ-dependent phosphorylation of TANK which may provide negative feedback regulation of TANK mediated NF-κB activation (10).

Background References

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2. Chung, J.Y. et al. (2002) *J Cell Sci* 115, 679-88.
3. Bradley, J.R. and Pober, J.S. (2001) *Oncogene* 20, 6482-91.
4. Rothe, M. et al. (1994) *Cell* 78, 681-92.
5. Cheng, G. and Baltimore, D. (1996) *Genes Dev.* 10, 963-973.
6. Rothe, M. et al. (1996) *Proc. Natl. Acad. Sci. USA* 93, 8241-8846.
7. Pomerantz, J.L. and Baltimore, D. (1999) *EMBO J.* 18, 6694-6704.
8. Chariot, A. et al. (2002) *J. Biol. Chem.* 277, 37029-37036.
9. Chin, A.I. et al. (1999) *Mol. Cell. Biol.* 19, 6665-6672.
10. Bonif, M. et al. (2006) *Biochem. J.* 394, 593-603.

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 **M:** Mouse **R:** Rat

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