10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TANK Antibody

Catalog # ASC10443

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q92844
Other Accession	NP_004171, 19743569
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	47816
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TANK antibody can be used for the detection of TANK by Western blot at 0.5 - 2 μg/mL. Antibody can also be used for immunohistochemistry starting at 10 μg/mL. For immunofluorescence start at 20 μg/mL.

Additional Information

Gene ID	10010
Other Names	TANK Antibody: ITRAF, TRAF2, I-TRAF, ITRAF, TRAF family member-associated NF-kappa-B activator, TRAF-interacting protein, TRAF family member-associated NFKB activator
Target/Specificity	TANK;
Reconstitution & Storage	TANK antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TANK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TANK
Synonyms	ITRAF, TRAF2
Function	Adapter protein involved in I-kappa-B-kinase (IKK) regulation which constitutively binds TBK1 and IKBKE playing a role in antiviral innate immunity. Acts as a regulator of TRAF function by maintaining them in a latent state. Blocks TRAF2 binding to LMP1 and inhibits LMP1- mediated NF-kappa-B activation. Negatively regulates NF-kappaB signaling and cell survival upon DNA damage (PubMed:25861989). Plays a role as an adapter to assemble

ZC3H12A, USP10 in a deubiquitination complex which plays a negative feedback response to attenuate NF-kappaB activation through the deubiquitination of IKBKG or TRAF6 in response to interleukin-1-beta (IL1B) stimulation or upon DNA damage (PubMed:25861989). Promotes UBP10-induced deubiquitination of TRAF6 in response to DNA damage (PubMed:25861989). May control negatively TRAF2- mediated NF-kappa-B activation signaled by CD40, TNFR1 and TNFR2.

Cellular Location Cytoplasm.

Tissue Location Ubiquitous.

Background

TANK Antibody: TANK was initially identified as a novel TRAF-interacting protein that regulated TRAF-mediated signal transduction. Specifically, ligand binding by surface receptors in the tumor necrosis factor (TNF) receptor and Toll/interleukin-1 (IL-1) receptor families lead to the formation of a TRAF/TANK complex that mediates the activation of the transcription factor NF-κB. This activation of NF-κB occurs through an association with the kinases IKKε and TBK1. More recently, it was shown that these proteins can then form a complex with NEMO, a protein that regulates the activity of the IκB complex. This suggests that in addition to the possibility that TBK1 and IKKε activate the IKKs, the association with the IKK complex may help these kinases modulate other functions, such as the transactivation potential of NF-κB proteins. At least two isoforms of TANK are known to exist.

References

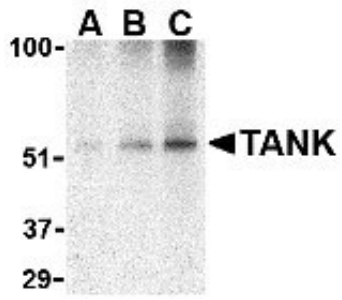
Cheng G and Baltimore D. TANK, a co-inducer with TRAF2 of TNF- and CD40L-mediated NF-κB activation. Genes Dev. 1996; 10:963-73.

Rothe M, Xiong J, Shu HB, et al. I-TRAF is a novel TRAF-interacting protein that regulates TRAF-mediated signal transduction. Proc. Natl. Acad. Sci. USA 1996; 93:8241-6.

Pomerantz JL and Baltimore D. NF-κB activation by a signaling complex containing TRAF2, TANK and TBK1, a novel IKK-related kinase. EMBO J. 1999; 18:6694-704.

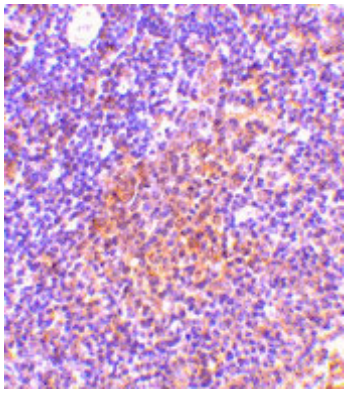
Chariot A, Leonardi A, Muller J, et al. Association of the adaptor TANK with the IκB kinase (IKK) regulator NEMO connects IKK complexes with the IKKε and TBK1 kinases. J. Biol. Chem.2002; 277:37029-36.

Images



Western blot analysis of TANK in Daudi cell lysate with TANK antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.

Immunohistochemistry of TANK in rat spleen tissue with TANK antibody at 10 µg/mL.



Immunofluorescence of TANK in Rat Spleen cells with TANK antibody at 20 µg/mL.