

Anti-NAK / TBK1 (CT) Polyclonal Antibody

CATALOG No.: PX211A **SIZE:** 100 µg

LOT: 0004

BACKGROUND:

Nuclear factor kappa B (NF-κB) is a ubiquitous transcription factor and an essential mediator of gene expression during activation of immune and inflammatory responses. NF-κB mediates the expression of a great variety of genes in response to extracellular stimuli. NF-κB is associated with IκB proteins in the cell cytoplasm, which inhibit NF-κB activity. Phosphorylation of IκB by IκB kinase (IKK) complex leads to degradation of IκB and activation of NF-κB. The IKK complex contains IKKα, IKKβ, and IKKγ. A novel IKK related kinase was recently identified and designated TBK1 (TANK-binding kinase 1), NAK (NF-κB-activating kinase), and T2K (1-3). NAK/TBK1 activates IKKβ through direct phosphorylation. NAK/TBK1 is activated by growth factors and PMA and mediates IKK and NF-κB activation in response to growth factors (2). NAK/TBK1 functions upstream of NIK and the IKK complex (1,2). NAK/TBK1 is also critical in protecting embryonic liver from apoptosis (3).

SOURCE:

Rabbit anti-NAK/TBK1 polyclonal antibody was raised against a synthetic peptide (ERFGSLTMDG GLRNVD) corresponding to amino acids 712 to 727 of human NAK/TBK1 (1,2), which are identical to those of mouse homologue (1).

APPLICATION:

This polyclonal antibody can be used for detection of NAK/TBK1 by Western blot at 0.5 to 1 µg/ml. MOLT4 whole cell lysate can be used as positive

control and an 84 kDa band should be detected. It is human, mouse and rat reactive and has no cross response to IKKα, IKKβ, IKKγ, or IKKε.

STORAGE:

It is supplied as immunoaffinity chromatography purified IgG, 100 µg in 200 µl of PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.

RELATED PRODUCTS:

Blocking peptide, 50 µg at 200 µg/ml, is available for competition studies.

REFERENCES:

1. Pomerantz JL, Baltimore D. NF-kappaB activation by a signaling complex containing TRAF2, TANK and TBK1, a novel IKK-related kinase. *EMBO J* 1999;18(23):6694-704
2. Tojima Y, Fujimoto A, Delhase M, Chen Y, Hatakeyama S, Nakayama K, Kaneko Y, Nimura Y, Motoyama N, Ikeda K, Karin M, Nakanishi M. NAK is an IkappaB kinase-activating kinase. *Nature* 2000;404(6779):778-82
3. Bonnard M, Mirtsos C, Suzuki S, Graham K, Huang J, Ng M, Itie A, Wakeham A, Shahinian A, Henzel WJ, Elia AJ, Shillinglaw W, Mak TW, Cao Z, Yeh WC. Deficiency of T2K leads to apoptotic liver degeneration and impaired NF-kappaB-dependent gene transcription. *EMBO J*. 2000;19(18):4976-85.

CAUTION: NOT FOR USE IN HUMANS. FOR RESEARCH PURPOSES ONLY.



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