

产品名称: Phospho-NAK/TBK1 (S172) (10J4) Rabbit Monoclonal Antibody
产品货号: AMRe05953



产品概述 (Summary)

产品名称 (Production Name)	Phospho-NAK/TBK1 (S172) (10J4) Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB
种属反应性 (Reactivity)	Human

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Phosphorylated
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	TBK1
别名 (Alternative Names)	FTDALS4; NAK; T2K; Tbk1;
基因 ID (Gene ID)	29110.0
蛋白 ID (SwissProt ID)	Q9UHD2.

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:1000-1:5000
蛋白分子量 (Molecular Weight)	84kDa

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研究背景 (Background)

Serine/threonine protein involved in the signaling cascade converging to the activation of the transcription factor NF-kappa-B. May function as an IKK kinase, playing an essential role in the transcription of a subset of TNF-alpha-induced genes. Also mediates production of RANTES/CCL5 and interferon-beta/IFNB1. Serine/threonine kinase that plays an essential role in regulating inflammatory responses to foreign agents (PubMed:[12692549](http://www.uniprot.org/citations/12692549), PubMed:[14703513](http://www.uniprot.org/citations/14703513), PubMed:[18583960](http://www.uniprot.org/citations/18583960), PubMed:[12702806](http://www.uniprot.org/citations/12702806), PubMed:[15367631](http://www.uniprot.org/citations/15367631), PubMed:[10581243](http://www.uniprot.org/citations/10581243), PubMed:[11839743](http://www.uniprot.org/citations/11839743), PubMed:[15485837](http://www.uniprot.org/citations/15485837), PubMed:[21138416](http://www.uniprot.org/citations/21138416), PubMed:[25636800](http://www.uniprot.org/citations/25636800), PubMed:[23453971](http://www.uniprot.org/citations/23453971), PubMed:[23453972](http://www.uniprot.org/citations/23453972), PubMed:[23746807](http://www.uniprot.org/citations/23746807), PubMed:[26611359](http://www.uniprot.org/citations/26611359), PubMed:[32404352](http://www.uniprot.org/citations/32404352)). Following activation of toll-like receptors by viral or bacterial components, associates with TRAF3 and TANK and phosphorylates interferon regulatory factors (IRFs) IRF3 and IRF7 as well as DDX3X (PubMed:[12692549](http://www.uniprot.org/citations/12692549), PubMed:[14703513](http://www.uniprot.org/citations/14703513), PubMed:[18583960](http://www.uniprot.org/citations/18583960), PubMed:[12702806](http://www.uniprot.org/citations/12702806), PubMed:[15367631](http://www.uniprot.org/citations/15367631), PubMed:[25636800](http://www.uniprot.org/citations/25636800)). This activity allows subsequent homodimerization and nuclear translocation of the IRFs leading to transcriptional activation of pro- inflammatory and antiviral genes including IFNA and IFNB (PubMed:[12702806](http://www.uniprot.org/citations/12702806), PubMed:[15367631](http://www.uniprot.org/citations/15367631), PubMed:[25636800](http://www.uniprot.org/citations/25636800), PubMed:[32972995](http://www.uniprot.org/citations/32972995)). In order to establish such an antiviral state, TBK1 form several different complexes whose composition depends on the type of cell and cellular stimuli (PubMed:[23453971](http://www.uniprot.org/citations/23453971), PubMed:[23453971](http://www.uniprot.org/citations/23453971)).

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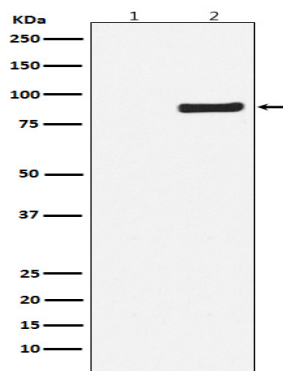
[>23453972](http://www.uniprot.org/citations/23453972) PubMed: [>23746807](http://www.uniprot.org/citations/23746807)). Plays a key role in IRF3 activation: acts by first phosphorylating innate adapter proteins MAVS, STING1 and TICAM1 on their pLxIS motif, leading to recruitment of IRF3, thereby licensing IRF3 for phosphorylation by TBK1 (PubMed: [>25636800](http://www.uniprot.org/citations/25636800), PubMed: [>30842653](http://www.uniprot.org/citations/30842653)). Phosphorylated IRF3 dissociates from the adapter proteins, dimerizes, and then enters the nucleus to induce expression of interferons (PubMed: [>25636800](http://www.uniprot.org/citations/25636800)). Thus, several scaffolding molecules including FADD, TRADD, MAVS, AZI2, TANK or TBKBP1/SINTBAD can be recruited to the TBK1- containing-complexes (PubMed: [>21931631](http://www.uniprot.org/citations/21931631)). Under particular conditions, functions as a NF-kappa-B effector by phosphorylating NF-kappa-B inhibitor alpha/NFKBIA, IKBKB or RELA to translocate NF-Kappa-B to the nucleus (PubMed: [>10783893](http://www.uniprot.org/citations/10783893), PubMed: [>15489227](http://www.uniprot.org/citations/15489227)). Restricts bacterial proliferation by phosphorylating the autophagy receptor OPTN/Optineurin on 'Ser-177', thus enhancing LC3 binding affinity and antibacterial autophagy (PubMed: [>21617041](http://www.uniprot.org/citations/21617041)). Phosphorylates SMCR8 component of the C9orf72-SMCR8 complex, promoting autophagosome maturation (PubMed: [>27103069](http://www.uniprot.org/citations/27103069)). Phosphorylates and activates AKT1 (PubMed: [>21464307](http://www.uniprot.org/citations/21464307)). Seems to play a role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, which leads to a negative impact on insulin sensitivity (By similarity). Attenuates retroviral budding by phosphorylating the endosomal sorting complex required for transport-I (ESCRT-I) subunit VPS37C (PubMed: [>21270402](http://www.uniprot.org/citations/21270402)). Phosphorylates Borna disease virus (BDV) P protein (PubMed: [>16155125](http://www.uniprot.org/citations/16155125)). Plays an essential role in the TLR3- and IFN-dependent control of herpes virus HSV-1 and HSV-2 infections in the central nervous system (PubMed: [>22851595](http://www.uniprot.org/citations/22851595)).

研究领域 (Research Area)

Signal Transduction

图片 (Image Data)

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Western blot analysis of NAK/TBK1 (phospho S172) expression in (1) HeLa cell lysate; (2) HeLa cell treated with Calyculin A .

注意事项 (Note)

For research use only .