Anti-NAK / TBK1 Antibody [PSH11-69] - BSA and Azide free

HA751425

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, FC, IP
Molecular Wt:	Predicted band size: 84 kDa
Clone number:	PSH11-69

Description: TBK1 (TANK-binding kinase 1) is an enzyme with kinase activity. Specifically, it is a serine / threonine protein kinase. It is encoded by the TBK1 gene in humans. This kinase is mainly known for its role in innate immunity antiviral response. However, TBK1 also regulates cell proliferation, apoptosis, autophagy, and anti-tumor immunity. Insufficient regulation of TBK1 activity leads to autoimmune, neurodegenerative diseases or tumorigenesis.

Immunogen: Recombinant protein within human TBK1 aa 451-729.

Positive control: HCT 106 cell lysate, K-562 cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, Mouse testis tissue lysate, Rat testis tissue lysate, HCT 116.

Subcellular location: Cytoplasm.

Database links: SwissProt: Q9UHD2 Human | Q9WUN2 Mouse
Entrez Gene: 299827 Rat

Recommended Dilutions:

WB	1:10,000
IF-Cell	1:250
FC	1:1,000
IP	1-2μg/sample

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

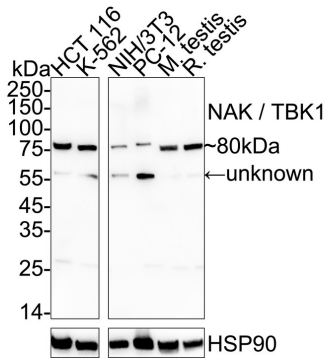

Fig1: Western blot analysis of NAK / TBK1 on different lysates with Rabbit anti-NAK / TBK1 antibody (HA751425) at 1/10,000 dilution.

Lane 1: HCT 106 cell lysate (20 µg/Lane)
Lane 2: K-562 cell lysate (20 µg/Lane)
Lane 3: NIH/3T3 cell lysate (20 µg/Lane)
Lane 4: PC-12 cell lysate (20 µg/Lane)
Lane 5: Mouse testis tissue lysate (40 µg/Lane)
Lane 6: Rat testis tissue lysate (40 µg/Lane)

Predicted band size: 84 kDa
Observed band size: 80 kDa

Exposure time: 2 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751425) at 1/10,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

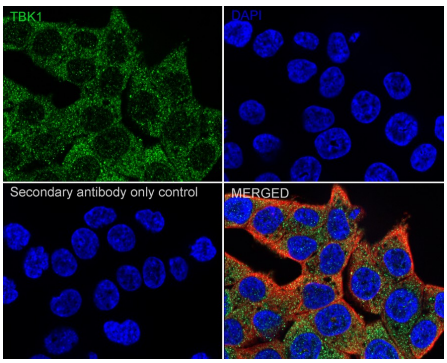

Fig2: Immunocytochemistry analysis of HCT 116 cells labeling NAK / TBK1 with Rabbit anti-NAK / TBK1 antibody (HA751425) at 1/250 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-NAK / TBK1 antibody (HA751425) at 1/250 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

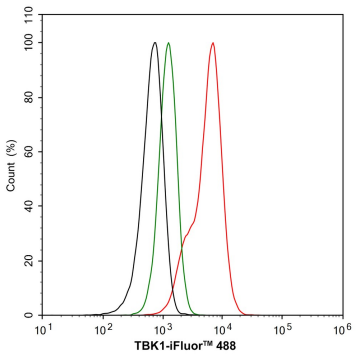

Fig3: Flow cytometric analysis of HCT 116 cells labeling NAK / TBK1.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA751425, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

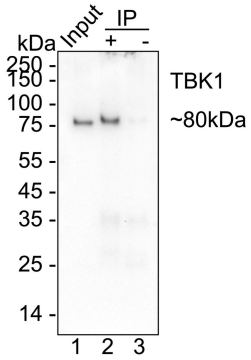

Fig4: NAK / TBK1 was immunoprecipitated from 0.2 mg HCT 116 cell lysate with HA751425 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA751425 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: HCT 116 cell lysate (input)
Lane 2: HA751425 IP in HCT 116 cell lysate
Lane 3: Rabbit IgG instead of HA751425 in HCT 116 cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 59 seconds; ECL: K1801

Background References

1. Chen J et al. TBK1-METTL3 axis facilitates antiviral immunity. Cell Rep. 2022 Feb
2. Runde AP et al. The role of TBK1 in cancer pathogenesis and anticancer immunity. J Exp Clin Cancer Res. 2022 Apr