Anti-NAK / TBK1 Antibody [A8D10]

HA601044

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 84 kDa
Clone number:	A8D10

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. TBK1 is involved in many signaling pathways and forms a node between them. For this reason, regulation of its involvement in individual signaling pathways is necessary. This is provided by adaptor proteins that interact with the dimerization domain of TBK1 to determine its location and access to substrates. Binding to TANK leads to localization to the perinuclear region and phosphorylation of substrates which is required for subsequent production of type I interferons (IFN-I). In contrast, binding to NAP1 and SINTBAD leads to localization in the cytoplasm and involvement in autophagy. Another adaptor protein that determines the location of TBK1 is TAPE. TAPE targets TBK1 to endolysosomes.

Immunogen: Recombinant protein within human TBK1 aa 530-729/729.

Positive control: K562 cell lysate, NIH/3T3 cell lysate, Hela cell lysate, MCF-7 cell lysate, HepG2 cell lysate, mouse brain tissue lysate, rat brain tissue lysate, rat stomach tissue lysate.

Subcellular location: Cytoplasm.

Database links: SwissProt: Q9UHD2 Human | Q9WUN2 Mouse | D4A7D3 Rat

Recommended Dilutions:

WB	1:500

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

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

Purity: Protein A affinity purified.

Images

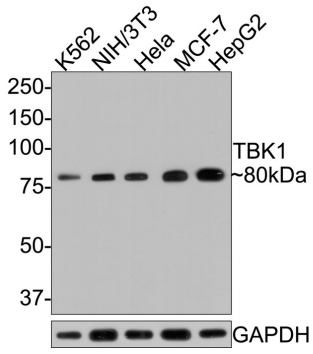

Fig1: Western blot analysis of NAK / TBK1 on different lysates with Mouse anti-NAK / TBK1 antibody (HA601044) at 1/500 dilution.

Lane 1: K562 cell lysate
Lane 2: NIH/3T3 cell lysate
Lane 3: Hela cell lysate
Lane 4: MCF-7 cell lysate
Lane 5: HepG2 cell lysate

Lysates/proteins at 10 µg/Lane.

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

Exposure time: 2 minutes;

8% 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 (HA601044) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.

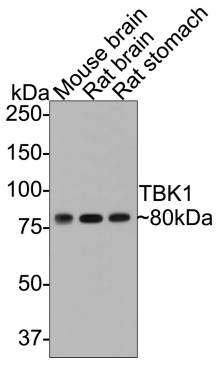

Fig2: Western blot analysis of NAK / TBK1 on different lysates with Mouse anti-NAK / TBK1 antibody (HA601044) at 1/500 dilution.

Lane 1: Mouse brain tissue lysate
Lane 2: Rat brain tissue lysate
Lane 3: Rat stomach tissue lysate

Lysates/proteins at 20 µg/Lane.

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

Exposure time: 2 minutes;

8% 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 (HA601044) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.

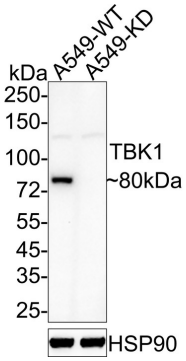

Fig3: Western blot analysis of NAK / TBK1 on different lysates with Mouse anti-NAK / TBK1 antibody (HA601044) at 1/500 dilution.

Lane 1: A549-si NT cell lysate
Lane 2: A549-si NAK / TBK1 cell lysate

Lysates/proteins at 20 µg/Lane.

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

Exposure time: 3 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 (HA601044) at 1/500 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Hu L. et. al. TBK1 Is a Synthetic Lethal Target in Cancer with VHL Loss. Cancer Discov. 2020 Mar
2. Aravamudhan A. et. al. TBK1 regulates YAP/TAZ and fibrogenic fibroblast activation. Am J Physiol Lung Cell Mol Physiol. 2020 May