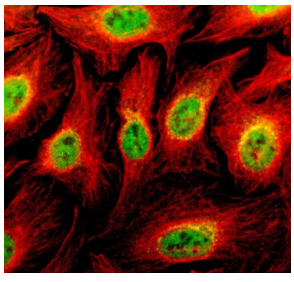
TBKBP1 Antibody / TANK-binding kinase 1-binding protein 1 (FY13290)

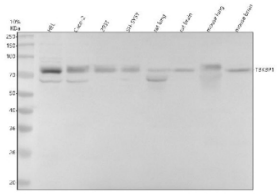
Catalog No.	Formulation	Size
FY13290	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

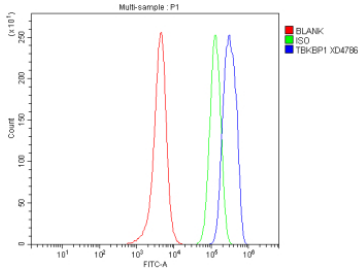
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	A7MCY6
Localization	Nuclear
Applications	Western Blot: 0.25-0.5ug/ml Immunocytochemistry/Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This TBKBP1 antibody is available for research use only.



Immunofluorescent staining of TBKBP1 using anti-TBKBP1 antibody (green) and anti-Beta Tubulin antibody (red). TBKBP1 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-TBKBP1 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG and Cy3 Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of TBKBP1 using anti-TBKBP1 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HEL whole cell lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: human SH-SY5Y whole cell lysates, Lane 5: rat lung tissue lysates, Lane 6: rat brain tissue lysates, Lane 7: mouse lung tissue lysates, Lane 8: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TBKBP1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A predominant band is detected at an approximately 78 kDa in all samples, running above the predicted ~68 kDa size but consistent with the higher apparent molecular weight expected for a coiled-coil adaptor protein with multiple post translational modifications. Some lysates also display a weaker band between ~65 and 70 kDa, likely representing a less modified or partially processed form of TBKBP1.



Flow Cytometry analysis of SH-SY5Y cells using anti-TBKBP1 antibody. Overlay histogram showing SH-SY5Y cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TBKBP1 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Description

TBKBP1 antibody recognizes TANK-binding kinase 1-binding protein 1, a scaffold protein that links TANK-binding kinase 1 (TBK1) and IKK epsilon to downstream effectors in antiviral and inflammatory signaling pathways. Encoded by the TBKBP1 gene, also known as SINTBAD (Similar to NAP1 TBK1 adaptor), this cytosolic adaptor protein participates in type I interferon responses by coordinating the assembly of signaling complexes involved in innate immunity. TBKBP1 interacts with kinases TBK1 and IKK epsilon to facilitate activation of interferon regulatory factors IRF3 and IRF7, leading to production of antiviral cytokines.

TBKBP1 functions as part of a network of adaptor proteins, including NAP1 and TANK, that integrate pattern recognition receptor (PRR) signaling from Toll-like receptors, RIG-I-like receptors, and cytosolic DNA sensors. Upon pathogen detection, TBKBP1 recruits TBK1 to perinuclear regions and promotes its activation via phosphorylation. This process is essential for host defense against viral infection. Beyond immune responses, TBKBP1 also participates in autophagy regulation and may influence NF-kappaB signaling, linking innate immune sensing with cell survival and metabolic adaptation.

The TBKBP1 gene is located on chromosome 17q21.31 and encodes a protein with coiled-coil and leucine zipper domains that mediate multimeric complex formation. Expression is observed in immune tissues, liver, and lung, and can be induced by viral infection or interferon stimulation. Structural studies suggest that TBKBP1 provides a flexible scaffold for recruitment of kinases and transcription factors, enabling precise control of signal propagation. Genetic studies have associated TBKBP1 polymorphisms with autoimmune disorders and susceptibility to chronic inflammation.

Immunohistochemical analysis using TBKBP1 antibody reveals cytoplasmic distribution in macrophages, dendritic cells, and epithelial tissues. The antibody is widely used to study antiviral defense mechanisms, cytokine signaling, and innate

immune regulation. TBKBP1 antibody from NSJ Bioreagents provides an important reagent for investigating TBK1/IKK-related pathways and the molecular coordination of immune responses.

Application Notes

Optimal dilution of the TBKBP1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TBKBP1 recombinant protein (Position: D35-E467) was used as the immunogen for the TBKBP1 antibody.

Storage

After reconstitution, the TBKBP1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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