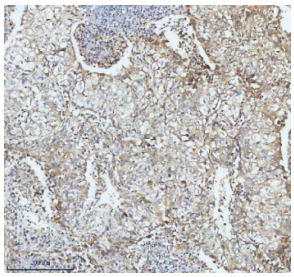
SBK1 Antibody / SH3 domain-binding kinase 1 (FY13223)

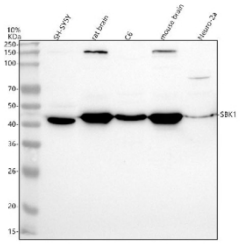
Catalog No.	Formulation	Size
FY13223	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

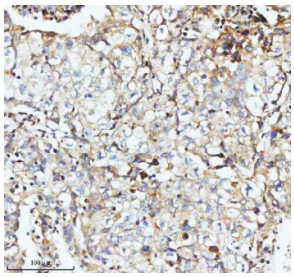
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q52WX2
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Immunoprecipitation: 2-4ug/500ug of lysate Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This SBK1 antibody is available for research use only.



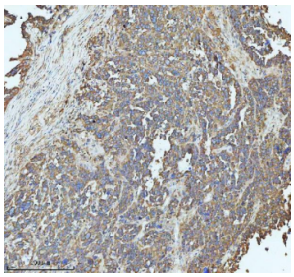
Immunohistochemical staining of SBK1 using anti-SBK1 antibody. SBK1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SBK1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



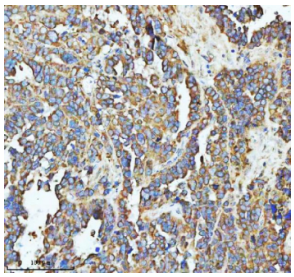
Western blot analysis of SBK1 using anti-SBK1 antibody. Lane 1: human SH-SY5Y whole cell lysates, Lane 2: rat brain tissue lysates, Lane 3: rat C6 whole cell lysates, Lane 4: mouse brain tissue lysates, Lane 5: mouse Neuro-2a whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose 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-SBK1 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 enhanced chemiluminescent. The expected molecular weight of SBK1 is ~46 kDa.



Immunohistochemical staining of SBK1 using anti-SBK1 antibody. SBK1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SBK1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



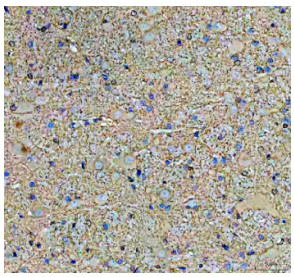
Immunohistochemical staining of SBK1 using anti-SBK1 antibody. SBK1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SBK1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



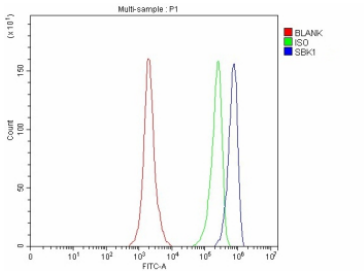
Immunohistochemical staining of SBK1 using anti-SBK1 antibody. SBK1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SBK1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



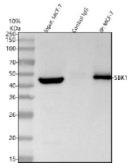
Immunohistochemical staining of SBK1 using anti-SBK1 antibody. SBK1 was detected in a paraffin-embedded section of mouse cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SBK1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Immunohistochemical staining of SBK1 using anti-SBK1 antibody. SBK1 was detected in a paraffin-embedded section of rat cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SBK1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Flow Cytometry analysis of SH-SY5Y cells using anti-SBK1 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-SBK1 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.



Immunoprecipitating SBK1 in MCF-7 whole cell lysate. Western blot analysis of SBK1 using anti-SBK1 antibody; Lane 1: MCF-7 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-SBK1 antibody in MCF-7 whole cell lysate; Lane 3: anti-SBK1 antibody (2ug) + MCF-7 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-SBK1 antibody at a dilution of 0.5 ug/ml and probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using ECL Plus Western Blotting Substrate. The expected molecular weight of SBK1 is at 46 kDa.

Description

SBK1 antibody detects SH3 domain-binding kinase 1, a serine/threonine protein kinase implicated in neuronal signaling, stress response, and intracellular communication. The UniProt recommended name is SH3 domain-binding kinase 1 (SBK1). This protein belongs to the protein kinase-like (PKL) family and may act as a regulator of ion channel function, cytoskeletal organization, and synaptic plasticity.

Functionally, SBK1 antibody identifies a 364-amino-acid cytoplasmic and membrane-associated kinase that contains an N-terminal kinase domain and an SH3-binding motif. SBK1 is expressed primarily in the brain, where it interacts with SH3 domain-containing proteins involved in signal transduction and vesicular trafficking. Although its substrates remain incompletely characterized, SBK1 likely modulates signaling pathways linked to neuronal differentiation and synaptic strength.

The SBK1 gene is located on chromosome 16q12.1 and is expressed in brain, skeletal muscle, and heart. Expression levels are regulated by neuronal activity and stress stimuli, suggesting involvement in activity-dependent signaling cascades. SBK1 may function as part of kinase networks that fine-tune cellular responses to excitatory signals and metabolic stress.

Pathologically, altered SBK1 expression has been observed in neurological disorders and cancers. Increased expression has been associated with gliomas and neural tissue remodeling, while reduced expression may impair neuronal communication or contribute to neurodegenerative processes. Research using SBK1 antibody supports studies in neuroscience, kinase signaling, and stress adaptation pathways.

SBK1 antibody is validated for western blotting, immunohistochemistry, and immunofluorescence to detect neuronal kinases. NSJ Bioreagents provides SBK1 antibody reagents optimized for studies in intracellular signaling, brain physiology, and kinase function.

Structurally, SH3 domain-binding kinase 1 contains a conserved catalytic domain with ATP-binding and substrate recognition motifs characteristic of serine/threonine kinases. Its SH3-binding region facilitates association with signaling scaffolds and adaptor proteins. This antibody enables exploration of SBK1Ã¯Â¿Â½s role in neuronal signaling, cytoskeletal regulation, and adaptive stress responses.

Application Notes

Optimal dilution of the SBK1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SBK1 recombinant protein (Position: E34-Q293) was used as the immunogen for the SBK1 antibody.

Storage

After reconstitution, the SBK1 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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