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
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.

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 SBK1Â's 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.