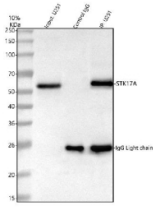
STK17A Antibody / Serine/threonine-protein kinase 17A (FY12534)

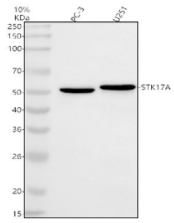
Catalog No.	Formulation	Size
FY12534	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

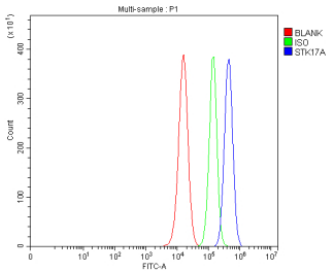
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9UEE5
Applications	Western Blot : 0.25-0.5ug/ml Immunoprecipitation : 2-4ug/500ug of lysate Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This STK17A antibody is available for research use only.



Immunoprecipitating STK17A in U251 whole cell lysate. Western blot analysis of STK17A using anti-STK17A antibody. Lane 1: U251 whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-STK17A antibody in U251 whole cell lysate, Lane 3: anti-STK17A antibody (2ug) + U251 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-STK17A antibody at a dilution of 0.5 ug/ml and probed with a mouse anti-rabbit IgG-HRP secondary antibody (Light Chain). The signal is developed using ECL Plus Western Blotting Substrate. STK17A (~47 kDa predicted) was detected as a major band at ~53 kDa, consistent with phosphorylation-dependent migration shift and the acidic C-terminal domain known to cause slower SDS-PAGE mobility.



Western blot analysis of STK17A using anti-STK17A antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human PC-3 whole cell lysates, Lane 2: human U251 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-STK17A 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. STK17A (~47 kDa predicted) was detected as a major band at ~53 kDa, consistent with phosphorylation-dependent migration shift and the acidic C-terminal domain known to cause slower SDS-PAGE mobility.



Flow Cytometry analysis of PC-3 cells using anti-STK17A antibody. Overlay histogram showing PC-3 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-STK17A 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

STK17A antibody detects Serine/threonine-protein kinase 17A, also known as DRAK1, a pro-apoptotic kinase that regulates programmed cell death, cytoskeletal organization, and transcriptional responses to stress. STK17A belongs to the death-associated protein kinase (DAPK) family and is activated by genotoxic and oxidative stress. The STK17A antibody is widely used in apoptosis research, cancer biology, and neurodegeneration studies.

STK17A is encoded by the STK17A gene on human chromosome 7p13. The protein is approximately 42 kilodaltons and consists of an N-terminal catalytic kinase domain and a C-terminal regulatory tail rich in serine residues. STK17A localizes mainly to the nucleus and cytoplasm, where it phosphorylates substrates involved in apoptosis signaling and actin remodeling.

The STK17A antibody detects a 47-53 kilodalton band by western blot and demonstrates nuclear enrichment under apoptotic conditions. STK17A mediates cell death through phosphorylation of transcription factors such as FOXO3 and histone H2B, promoting DNA fragmentation and chromatin condensation. Its expression is upregulated by p53 following DNA damage, placing it downstream of tumor-suppressive signaling pathways.

STK17A also influences cytoskeletal dynamics by modulating RhoA activity and actin filament organization, linking apoptosis regulation to cellular morphology. In neurons, STK17A activation contributes to axon retraction and degeneration during stress. Conversely, suppression of STK17A enhances survival and regenerative capacity in damaged tissues.

Dysregulated STK17A signaling is implicated in multiple diseases. Overexpression promotes apoptosis and tissue atrophy, while reduced activity correlates with tumor survival and resistance to therapy. Pharmacologic targeting of STK17A could restore controlled cell death in cancer or prevent neurodegeneration in stress-related disorders. NSJ Bioreagents provides a validated STK17A antibody optimized for its applications, supporting detailed investigation of apoptotic signaling and stress-response regulation.

Application Notes

Optimal dilution of the STK17A antibody should be determined by the researcher.

Immunogen

E.coli-derived human STK17A recombinant protein (Position: Q38-Q383) was used as the immunogen for the STK17A antibody.

Storage

After reconstitution, the STK17A antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.