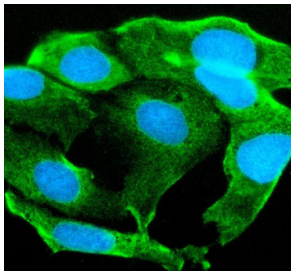
STYK1 Antibody / Serine/threonine/tyrosine kinase 1 (FY12843)

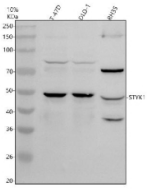
Catalog No.	Formulation	Size
FY12843	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

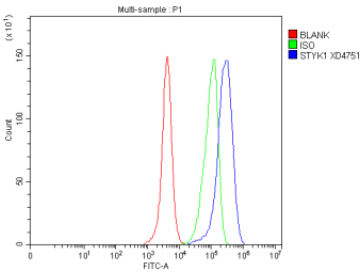
Availability	1-2 days
Species Reactivity	Human, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q6J9G0
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This STYK1 antibody is available for research use only.



Immunofluorescent staining of STYK1 using anti-STYK1 antibody. STYK1 was detected in an immunocytochemical section of Caco-2 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-STYK1 antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of STYK1 using anti-STYK1 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human T-47D whole cell lysates, Lane 2: human DLD-1 whole cell lysates, Lane 3: rat RH35 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-STYK1 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 specific band was detected for STYK1 at approximately 48 kDa. The expected molecular weight of STYK1 is ~48 kDa.



Flow Cytometry analysis of HeLa cells using anti-STYK1 antibody. Overlay histogram showing HeLa cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-STYK1 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

STYK1 antibody detects Serine/threonine/tyrosine kinase 1, a membrane-associated receptor-like kinase implicated in cell growth, migration, and tumor progression. Encoded by the STYK1 gene on chromosome 12q24.13, this atypical kinase belongs to the receptor protein tyrosine kinase family but exhibits dual-specificity catalytic activity, phosphorylating both serine/threonine and tyrosine residues. STYK1 functions in intracellular signaling pathways that regulate proliferation, differentiation, and oncogenic transformation.

Structurally, STYK1 is composed of a short extracellular domain, a single transmembrane helix, and a cytoplasmic kinase domain that mediates signal transduction. Although structurally similar to receptor tyrosine kinases, it lacks a classical ligand-binding domain and likely operates through intracellular signaling or interaction with other membrane proteins. STYK1 activates downstream effectors, including the MAPK/ERK and PI3K/AKT pathways, promoting cell survival and motility.

The STYK1 antibody is widely used in cancer biology, kinase signaling, and molecular pathology research to investigate its oncogenic potential and functional roles in signal integration. Western blot analysis detects a 48 kilodalton band corresponding to STYK1, while immunohistochemistry shows strong membrane and cytoplasmic staining in epithelial tissues and cancer cells. This antibody provides a sensitive tool for evaluating kinase expression patterns and activation states in tumor and normal tissues.

Overexpression of STYK1 has been documented in lung, breast, prostate, and ovarian cancers, where it enhances tumor cell proliferation, metastasis, and resistance to apoptosis. It may function as a pseudokinase or a signaling scaffold that amplifies receptor-mediated responses. In normal physiology, STYK1 contributes to embryonic development and tissue regeneration by regulating kinase cross-talk. The STYK1 antibody enables researchers to dissect these mechanisms and explore its potential as a therapeutic target in oncology. NSJ Bioreagents validates this antibody for western blotting, immunohistochemistry, and immunofluorescence, ensuring high-quality and reproducible detection for kinase signaling research.

Application Notes

Optimal dilution of the STYK1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human STYK1 recombinant protein (Position: M1-Y404) was used as the immunogen for the STYK1 antibody.

Storage

After reconstitution, the STYK1 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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