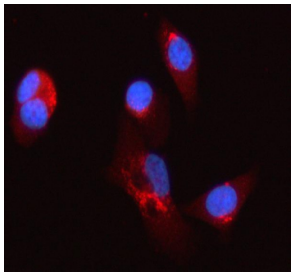
SYCN Antibody / Syncollin (FY12856)

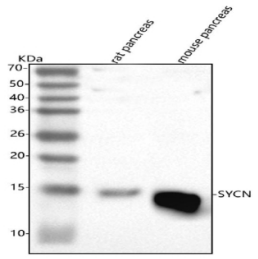
Catalog No.	Formulation	Size
FY12856	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

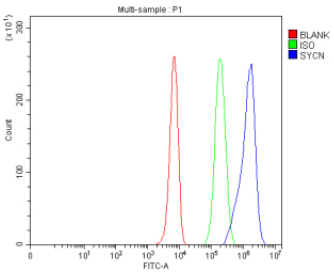
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q0VAF6
Localization	Cytoplasm
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This SYCN antibody is available for research use only.



Immunofluorescent staining of SYCN using anti-SYCN antibody (red). SYCN was detected in an immunocytochemical section of PC-3 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-SYCN antibody overnight at 4oC. Cy3 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 SYCN using anti-SYCN antibody. Lane 1: rat pancreas tissue lysates, Lane 2: mouse pancreas 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-SYCN 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. A specific band was detected for SYCN at approximately 14 kDa. The expected molecular weight of SYCN is ~14 kDa.



Flow Cytometry analysis of K562 cells using anti-SYCN antibody. Overlay histogram showing K562 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-SYCN 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 (Red line) was also used as a control.

Description

SYCN antibody detects Syncollin, a secretory vesicle membrane protein that plays an important role in pancreatic enzyme secretion and zymogen granule exocytosis. Encoded by the SYCN gene on chromosome 19q13.33, Syncollin is a small protein localized to the membranes of secretory vesicles within pancreatic acinar cells and other exocrine tissues. It functions as an accessory factor that promotes granule maturation, docking, and fusion with the plasma membrane during regulated secretion.

Structurally, Syncollin contains a coiled-coil domain responsible for oligomerization and membrane tethering, allowing it to form homo-oligomeric complexes on the luminal surface of zymogen granules. These complexes interact with SNARE proteins and other components of the exocytic machinery to facilitate vesicle fusion and enzyme release. SYCN contributes to the organization of zymogen granule membranes and ensures precise regulation of digestive enzyme secretion in response to cholecystokinin and other secretagogues.

The SYCN antibody is widely used in cell biology, gastrointestinal physiology, and secretion research to investigate vesicle dynamics, exocytosis, and pancreatic function. Western blot analysis detects a 13 kilodalton band corresponding to Syncollin, while immunofluorescence reveals punctate staining in the apical cytoplasm of acinar cells and along the zymogen granule membranes. This antibody supports analysis of regulated secretory pathways and granule maturation in exocrine tissues.

Disruption or reduced expression of SYCN impairs vesicle exocytosis and digestive enzyme secretion, leading to altered pancreatic physiology. In experimental models, loss of Syncollin function results in defective granule docking and diminished amylase release, highlighting its essential role in the secretory machinery. The SYCN antibody provides a robust reagent for examining vesicle organization, exocytotic mechanisms, and the structural biology of secretory organelles. NSJ Bioreagents validates this antibody for its applications to ensure reliable and reproducible results for studies on secretion and exocrine function.

Application Notes

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

Immunogen

E.coli-derived human SYCN recombinant protein (Position: A19-S134) was used as the immunogen for the SYCN antibody.

Storage

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