SCAMP3 Antibody / Secretory carrier-associated membrane protein 3 (FY12623)

Catalog No.	Formulation	Size
FY12623	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	O14828
Applications	ELISA : 0.1-0.5ug/ml Immunofluorescence : 5ug/ml Immunohistochemistry : 2-5ug/ml Immunocytochemistry : 5ug/ml Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This SCAMP3 antibody is available for research use only.

Description

SCAMP3 antibody detects Secretory carrier-associated membrane protein 3, a member of the SCAMP family of trafficking proteins that regulate endosomal sorting, receptor recycling, and vesicular transport. SCAMP3 functions as a cargo adaptor within multivesicular bodies and plays a key role in protein sorting along the endocytic and secretory pathways. The SCAMP3 antibody is widely used in membrane biology, receptor trafficking, and cell signaling research to study protein degradation, recycling, and endosomal regulation.

SCAMP3 is encoded by the SCAMP3 gene located on human chromosome 1q24.3. The protein is approximately 347 amino acids in length and contains four transmembrane domains along with cytoplasmic N- and C-terminal regions that interact with clathrin-associated sorting proteins and ubiquitin machinery. It localizes to early and late endosomes, Golgi apparatus, and the plasma membrane depending on cellular trafficking conditions.

The SCAMP3 antibody detects a 38 kilodalton protein by western blot and reveals punctate cytoplasmic staining corresponding to endosomal vesicles under confocal microscopy. SCAMP3 controls receptor fate by regulating cargo deubiquitination and sorting into intraluminal vesicles destined for lysosomal degradation. It acts downstream of the ESCRT (endosomal sorting complex required for transport) machinery and modulates the recycling of growth factor receptors such as EGFR and transferrin receptor.

Loss or knockdown of SCAMP3 disrupts receptor recycling, causing accumulation of ubiquitinated cargo and altered signaling duration. Overexpression can inhibit receptor downregulation and sustain proliferative signaling. Through its dual regulation of endocytosis and exocytosis, SCAMP3 maintains balance between degradation and recycling of membrane proteins, affecting cellular homeostasis and response to extracellular cues.

SCAMP3 also participates in cytokine secretion, exosome biogenesis, and viral budding, emphasizing its broad role in vesicle-mediated processes. Dysregulation has been associated with cancer progression, immune modulation, and neurodegenerative disorders where vesicle trafficking is impaired. Because SCAMP3 serves as a molecular switch between degradation and recycling, it provides insight into receptor signaling dynamics. NSJ Bioreagents provides a validated SCAMP3 antibody optimized for western blot, immunofluorescence, and endosomal fraction analysis, supporting detailed research into trafficking and membrane regulation.

Application Notes

Optimal dilution of the SCAMP3 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SCAMP3 recombinant protein (Position: M1-P347) was used as the immunogen for the SCAMP3 antibody.

Storage

After reconstitution, the SCAMP3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.