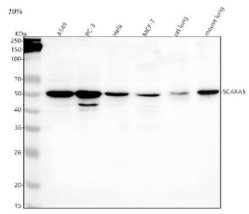
SCARA5 Antibody / Scavenger receptor class A member 5 (FY13109)

Catalog No.	Formulation	Size
FY13109	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	Q6ZMJ2
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This SCARA5 antibody is available for research use only.



Western blot analysis of SCARA5 using anti-SCARA5 antibody. Lane 1: human whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat lung tissue lysates, Lane 6: mouse lung 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-SCARA5 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. The expected molecular weight of SCARA5 is ~54 kDa.

Description

SCARA5 antibody detects Scavenger receptor class A member 5, a pattern recognition receptor that mediates endocytosis of modified lipoproteins and iron-bound ligands. The UniProt recommended name is Scavenger receptor class A member 5 (SCARA5). This type II transmembrane protein participates in host defense, cellular adhesion, and iron metabolism.

Functionally, SCARA5 antibody identifies a 495-amino-acid receptor consisting of a collagen-like domain, a coiled-coil stalk, and a C-terminal scavenger receptor cysteine-rich domain that binds various ligands. SCARA5 acts as a ferritin receptor, mediating non-transferrin-dependent iron uptake. It also recognizes bacterial components and oxidized lipoproteins, linking innate immune recognition with metabolic regulation.

The SCARA5 gene is located on chromosome 8p21.1 and is highly expressed in kidney, lung, and heart. SCARA5 localizes to the plasma membrane and endocytic vesicles, facilitating internalization of ferritin and other ligands. It contributes to maintaining iron homeostasis and protecting tissues from oxidative stress caused by excess free iron.

Pathologically, downregulation of SCARA5 expression has been reported in several cancers, including hepatocellular and renal carcinoma, suggesting a tumor suppressive role. By controlling iron uptake and reactive oxygen species balance, SCARA5 helps limit oxidative damage and cell proliferation. Research using SCARA5 antibody aids in studying iron metabolism, scavenger receptor function, and innate immunity.

SCARA5 antibody is validated for western blotting, immunohistochemistry, and flow cytometry to detect receptor expression in tissues and cells. NSJ Bioreagents provides SCARA5 antibody reagents optimized for studies of receptor-mediated endocytosis, iron homeostasis, and tumor biology.

Structurally, Scavenger receptor class A member 5 features a collagenous triple-helical domain that promotes trimerization and ligand binding, resembling other scavenger receptor family members. This antibody enables analysis of SCARA5Ã¯Â¿Â½s contribution to innate immunity, oxidative stress defense, and cancer suppression.

Application Notes

Optimal dilution of the SCARA5 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SCARA5 recombinant protein (Position: K31-R288) was used as the immunogen for the SCARA5 antibody.

Storage

After reconstitution, the SCARA5 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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