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SCARA5 Antibody

Catalog # ASC10941

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q6ZMJ2
Other Accession	NP_776194, 47271477
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	53994
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SCARA5 antibody can be used for detection of SCARA5 by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	286133
Other Names	Scavenger receptor class A member 5, Scavenger receptor hlg, SCARA5
Target/Specificity	SCARA5; At least four isoforms of SCARA5 are known to exist; this antibody will detect all four isoforms.
Reconstitution & Storage	SCARA5 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SCARA5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SCARA5 {ECO:0000255|HAMAP-Rule:MF_03070}
Function	Ferritin receptor that mediates non-transferrin-dependent delivery of iron. Mediates cellular uptake of ferritin-bound iron by stimulating ferritin endocytosis from the cell surface with consequent iron delivery within the cell. Delivery of iron to cells by ferritin is required for the development of specific cell types, suggesting the existence of cell type-specific mechanisms of iron traffic in organogenesis, which alternatively utilize transferrin or non-transferrin iron delivery pathways. Ferritin mediates iron uptake in capsule cells of the developing kidney. Preferentially binds ferritin light chain (FTL) compared to heavy chain (FTH1).

Cellular Location	Cell membrane {ECO:0000255|HAMAP-Rule:MF_03070}; Single-pass type II membrane protein {ECO:0000255|HAMAP-Rule:MF_03070}

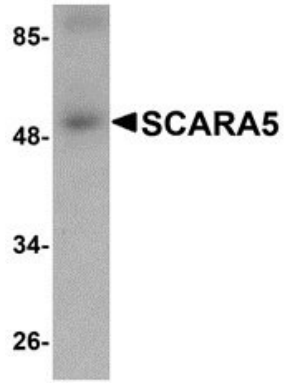
Background

SCARA5 Antibody: Scavenger receptor class A member 5 (SCARA5), also known as TESR, is part of the scavenger receptor superfamily, which is composed of many members with diverse structures, expression patterns, and functions. SCARA5 is a cell-surface receptor that contains the collagen-like domain and N-terminal scavenger receptor cysteine rich domain typical of the class A scavenger receptor subfamily. Unlike other class A receptors, SCARA5 does not endocytose acetylated or oxidized low density lipoprotein. Instead, SCARA5 binds serum ferritin and mediates its endocytosis from the cell surface, indicating SCARA5 may play a role in non-transferrin iron delivery.

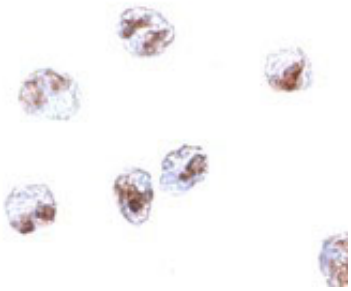
References

Greaves DR, Gough PJ, and Gordon S. Recent progress in defining the role of scavenger receptors in lipid transport, atherosclerosis and host defence. Curr. Op. Lipid. 1998; 9:425-32.
Jiang Y, Oliver P, Davies KE, et al. Identification and characterization of murine SCARA5, a novel class A scavenger receptor that is expressed by populations of epithelial cells. J. Biol. Chem. 2006; 281:11834-45.
Li JY, Paragas N, Ned RM, et al. Scara5 is a ferritin receptor mediating non-transferrin iron delivery. Dev. Cell 2009; 16:35-46.

Images

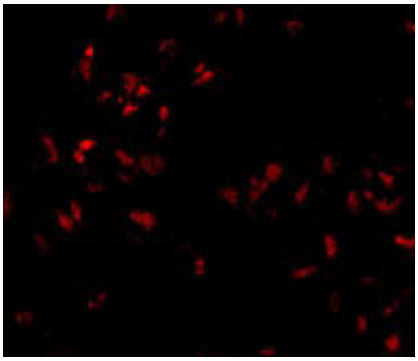


Western blot analysis of SCARA5 in human liver tissue lysate with SCARA5 antibody at 1 µg/mL.



Immunocytochemistry of SCARA5 in HepG2 cells with SCARA5 antibody at 2.5 µg/mL.

Immunofluorescence of SCARA5 in HepG2 cells with SCARA5 antibody at 20 µg/mL.



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