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SCUBE2 Antibody

Catalog # ASC11166

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q9NQ36
Other Accession	NP_066025, 283046663
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	109957
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SCUBE2 antibody can be used for detection of SCUBE2 by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 20 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	57758
Other Names	Signal peptide, CUB and EGF-like domain-containing protein 2, Protein CEGP1, SCUBE2, CEGP1
Target/Specificity	SCUBE2;
Reconstitution & Storage	SCUBE2 antibody can be stored at 4℃ for three months and -20℃, 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	SCUBE2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SCUBE2 {ECO:0000303|PubMed:12270931, ECO:0000312|HGNC:HGNC:30425}
Function	Lipid-binding protein carrier required for sonic hedgehog (SHH) long-range signaling: binds to the dually lipid-modified Sonic hedgehog protein N-product (ShhN) and promotes its release from producing cells, allowing it to act as a morphogen for distant signaling (PubMed:19480626, PubMed:22677548, PubMed:22902404, PubMed:35231446). ShhN is then transferred to the CDON-BOC heterodimer and GAS1 coreceptors to reach its target, the patched receptor (PTCH1 or PTCH2), followed by activation of the smoothened signaling pathway (PubMed:35231446). May also enhance the

	proteolytic processing (shedding) of the lipid-modified N- and C- terminal of ShhNp at the cell surface (PubMed:24522195). Synergizes with DISP1 to increase SHH secretion (PubMed:22902404). Probable cell surface coreceptor for VEGFR2 involved in VEGFR2-mediated angiogenesis (PubMed:27834687).
Cellular Location	Secreted. Cell surface. Note=Secreted and tethered at the cell surface.
Tissue Location	Expressed in a broad spectrum of adult tissues (PubMed:12270931).

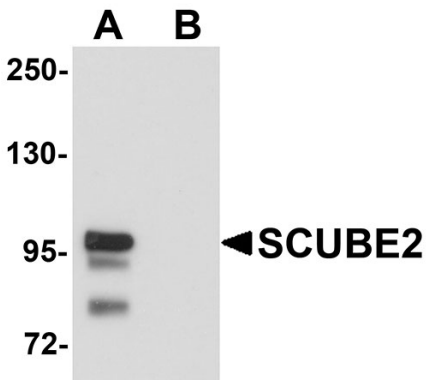
Background

SCUBE2 Antibody: SCUBE2 is a member of a family of secreted glycoproteins that contain N-terminal EGF-like repeats and C-terminal cysteine-rich motifs and CUB domain and are expressed in embryonic neuroectoderm and vascular epithelium. SCUBE2 is a close homolog to SCUBE1 and can form a heterodimeric complex with SCUBE1. SCUBE2 is thought to participate in the Hedgehog signaling pathway by specifically interacting with Sonic Hedgehog (SHH) and the receptor PTCH1, enhancing the SHH signaling activity in the raft microdomains of the plasma membrane, and may thus play important roles in organ development and tumor progression.

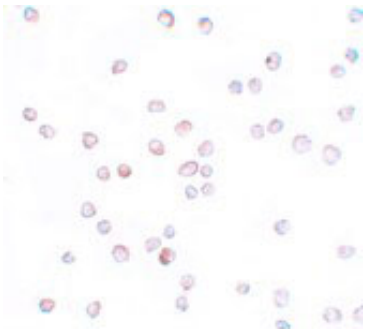
References

Grimmond S, Larder R, Van Hateren N, et al. Cloning, mapping, and expression analysis of a gene encoding a novel mammalian EGF-related protein (SCUBE1). Genomics2000; 70:74-81.
Yang RB, Ng CK, Wasserman SM, et al. Identification of a novel family of cell-surface proteins expressed in human vascular endothelium. J. Biol. Chem.2002; 277:46364-73.
Grimmond S, Larder R, Van Hateren N, et al. Cloning, mapping, and expression analysis of a gene encoding a novel mammalian EGF-related protein (SCUBE1). Genomics2000; 70:74-81.
Tsai M, Cheng C, Lin Y, et al. Isolation and characterization of a secreted, cell-surface glycoprotein SCUBE2 from humans. Biochem. J. 2009; 422:119-28.

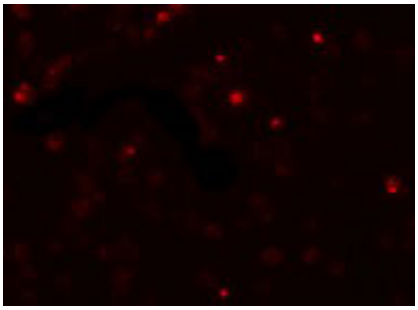
Images



Western blot analysis of SCUBE2 in Daudi cell lysate with SCUBE2 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunocytochemistry of SCUBE2 in Daudi cells with SCUBE2 antibody at 20 µg/mL.



Immunofluorescence of SCUBE2 in Daudi cells with SCUBE2 antibody at 20 µg/mL.

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