

VPS39 Antibody

Catalog # ASC11282

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q96JC1
Other Accession	AAQ05978 , 54234024
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	101809
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	VPS39 antibody can be used for detection of VPS39 by Western blot at 0.5 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.

Additional Information

Gene ID	23339
Other Names	Vam6/Vps39-like protein, TRAP1-like protein, hVam6p, VPS39, KIAA0770, TLP, VAM6
Target/Specificity	VPS39; At least four isoforms of VPS39 are known to exist; this antibody will detect all four. VPS39 antibody is predicted not to cross-react with TRAP1.
Reconstitution & Storage	VPS39 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	VPS39 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	VPS39 (HGNC:20593)
Synonyms	KIAA0770, TLP, VAM6
Function	Regulator of TGF-beta/activin signaling, inhibiting SMAD3- and activating SMAD2-dependent transcription. Acts by interfering with SMAD3/SMAD4 complex formation, this would lead to inhibition of SMAD3-dependent transcription and relieve SMAD3 inhibition of SMAD2-dependent promoters, thus increasing SMAD2- dependent transcription. Does not affect TGF-beta-induced SMAD2 or SMAD3 phosphorylation, nor SMAD2/SMAD4

complex formation.

Cellular Location

Cytoplasm. Lysosome membrane; Peripheral membrane protein. Late endosome membrane; Peripheral membrane protein. Note=Colocalizes with TGFBR1 and TGFBR2 in cytoplasmic vesicular structures and most prominently in cortical vesicles.

Tissue Location

Widely expressed, with highest levels in heart, skeletal muscle, kidney, pancreas, brain, placenta and spleen

Background

VPS39 Antibody: VPS39 is the mammalian homolog of the yeast vacuolar protein VAM6, that in mammals, promotes lysosome clustering and fusion in vivo. VPS39 is also thought to modulate the TGF-beta response by coupling the TGF-beta receptor complex to the Smad pathway. Similar to the related protein TRAP1, the VPS39 protein is essential for early embryonic development, with mice lacking VPS39 dying at or before E6.5.

References

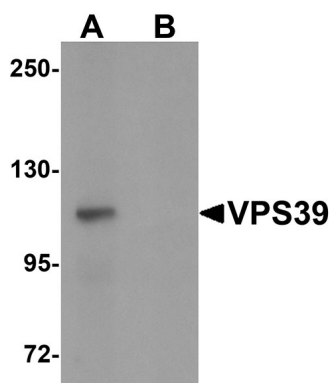
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Caplan S, Hartnell LM, Aguilar RC, et al. Human Vam6p promotes lysosome clustering and fusion in vivo. *J. Cell Biol.* 2001; 154:109-22.

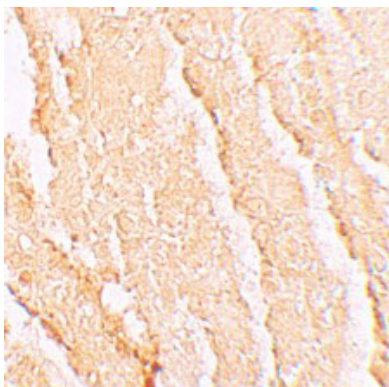
Felici A, Wurthner JU, Parks WT, et al. TLP, a novel modulator of TGF-beta signaling, has opposite effects on Smad2- and Smad3-dependent signaling. *EMBO J.* 2003; 22:4465-77.

Messler S, Kropp S, Episkopou V, et al. The TGF-b signaling modulators TRAP1/TGFBRAP1 and VPS39/Vam6/TLP are essential for early embryonic development. *Immunobiology* 2011; 216:343-50.

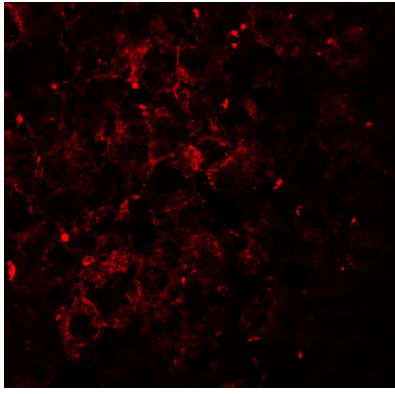
Images



Western blot analysis of VPS39 in rat liver tissue lysate with VPS39 antibody at 0.5 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of VPS39 in mouse liver tissue with VPS39 antibody at 5 µg/mL.



Immunofluorescence of VPS39 in mouse liver tissue with VPS39 antibody at 20 µg/mL.

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