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TIP47 Antibody

Catalog # ASC10445

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O60664
Other Accession	O60664, 68846601
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	47075
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TIP47 antibody can be used for the detection of TIP47 by Western blot at 0.5 - 1 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	10226
Other Names	TIP47 Antibody: PP17, TIP47, M6PRBP1, Perilipin-3, 47 kDa mannose 6-phosphate receptor-binding protein, 47 kDa MPR-binding protein, mannose-6-phosphate receptor binding protein 1
Target/Specificity	M6PRBP1;
Reconstitution & Storage	TIP47 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	TIP47 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLIN3
Synonyms	M6PRBP1, TIP47 {ECO:0000303|PubMed:95901
Function	Structural component of lipid droplets, which is required for the formation and maintenance of lipid storage droplets (PubMed:34077757). Required for the transport of mannose 6-phosphate receptors (MPR) from endosomes to the trans-Golgi network (PubMed:9590177).
Cellular Location	Lipid droplet. Endosome membrane; Peripheral membrane protein;

Cytoplasmic side. Cytoplasm. Note=Membrane associated on endosomes (PubMed:15545278). Detected in the envelope and the core of lipid bodies and in lipid sails (PubMed:15545278)

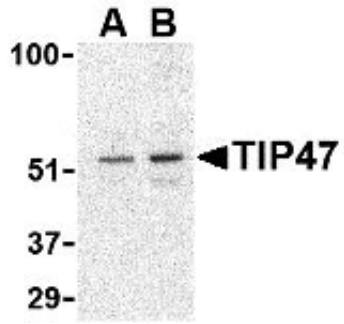
Background

TIP47 Antibody: Tail-interacting protein (TIP47) is a cytosolic protein essential for the transport of mannose-6-phosphate receptors (MPRs) from endosomes to the trans-Golgi compartments in cells. TIP47 is recruited from the cytoplasm to the late endosomal surface by the Ras-associated protein Rab9 GTPase, enabling it to bind more efficiently to MPR cytoplasmic domains. Recently, it was shown that TIP47 regulates the expression of Rab9, as expression of siRNA to TIP47 in transfected cells dramatically decreased the half-life of the Rab9 protein in addition to stabilizing the subcellular localization of Rab9. At least two isoforms of TIP47 are known to exist.

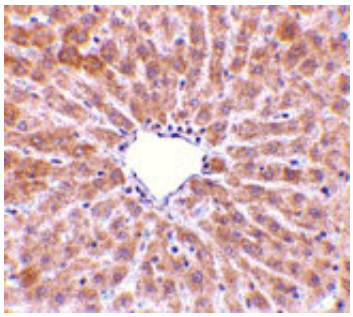
References

Barbero P, Bittova L, and Pfeffer SR. Visualization of Rab9-mediated vesicle transport from endosomes to the trans Golgi in living cells. J. Cell Biol. 2002; 156:511-8.
Carroll KS, Hanna J, Simon I, et al. Role of the Rab9 GTPase in facilitating receptor recruitment by TIP47. Science 2001; 292:1373-7.
Aivazian D, Serrano RL, and Pfeffer S. TIP47 is a key effector for Rab9 localization. J. Cell Biol. 2006; 173:917-26.
Ganley IG, Carroll K, Bittova L, et al. Rab9 GTPase regulates late endosome size and requires effector interaction for its stability. Mol. Biol. Cell 2004; 15:5420-30.

Images

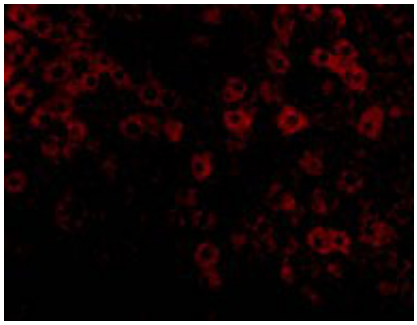


Western blot analysis of TIP47 in Daudi cell lysate with TIP47 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of TIP47 in rat liver tissue with TIP47 antibody at 10 µg/mL.

Immunofluorescence of TIP47 in Rat Liver cells with TIP47 antibody at 20 µg/mL.



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