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Fat Free Antibody
Catalog # ASC11526

Specification

Fat Free Antibody - Product Information

Application	**WB**
Primary Accession	Q9UID3
Other Accession	NP_037397, 8393009
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**86 kDa KDa**
Application Notes	**Fat Free antibody can be used for detection of Fat Free by Western blot at 1 µg/mL.**

Fat Free Antibody - Additional Information

Gene ID **738**

Target/Specificity
C11orf2; At least two alternatively spliced isoforms are known to exist; this antibody will detect both isoforms.

Reconstitution & Storage
Fat Free 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
Fat Free Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Fat Free Antibody - Protein Information

Name VPS51

Synonyms ANG2, C11orf2, C11orf3, FFR

Function
Acts as a component of the GARP complex that is involved in retrograde transport from early and late endosomes to the trans-Golgi network (TGN). The GARP complex is required for the maintenance of protein retrieval from endosomes to the TGN, acid hydrolase sorting, lysosome function, endosomal cholesterol traffic and autophagy. VPS51 participates in retrograde transport of acid hydrolase receptors, likely by promoting tethering and SNARE-dependent fusion of endosome- derived carriers to the TGN (PubMed:20685960). Acts as a component of the EARP complex that is involved in endocytic recycling. The EARP complex associates with Rab4-positive endosomes and promotes recycling of internalized transferrin

receptor (TFRC) to the plasma membrane (PubMed:25799061).

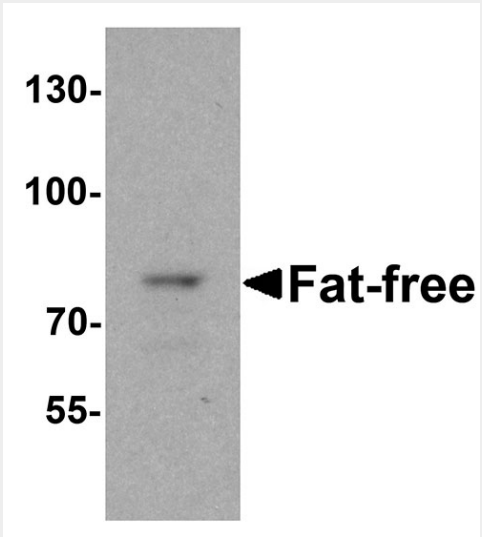
Cellular Location
Golgi apparatus, trans-Golgi network. Recycling endosome. Note=Localizes to the trans-Golgi network as part of the GARP complex, while it localizes to recycling endosomes as part of the EARP complex (PubMed:25799061)

Fat Free Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Fat Free Antibody - Images



Western blot analysis of Fat Free in mouse brain tissue lysate with Fat Free antibody at 1 µg/mL.

Fat Free Antibody - Background

Fat Free Antibody: Fat Free, also known as ANG2, was identified though a yeast two-hybrid screen using VP53. It is thought to be a structural and functional homolog of the yeast protein VPS51, a protein that together with VPS52, VPS53, and VPS54 form the Golgi-associated retrograde protein (GARP) complex that mediates the tethering and fusion of endosome-derived transport carriers to the trans-Golgi network (TGN). Similar to depletion of any of the VPS52, VPS53, or VPS54, depletion of Fat Free using RNAi impairs protein retrieval to the TGN indicating that Fat Free is missing component of the GARP complex in most eukaryotes.

Fat Free Antibody - References

Perez-Victoria FJ, Schindler C, Magadan JG, et al. Ang2/Fat Free is a conserved subunit of the Golgi-associated retrograde protein complex. Mol. Biol. Cell 2010; 21:3386-95
Ho SY, Lorent K, Pack M, et al. Zebrafish Fat Free is required for intestinal lipid absorption and Golgi apparatus structure. Cell Metab. 2006; 3:289-300.
Perez-Victoria FJ, Mardones GA, and Bonifacino JS. Requirement of the human GARP complex for mannose 6-phosphate-receptor-dependent sorting of cathepsin D to lysosomes. Mol. Biol. Cell 2008; 19:2350-62
Stafford RL, Ear J, Knight MJ, et al. The molecular basis of the Caskin1 and Mint1 interaction with CASK. J. Mol. Biol. 2011; 412:3-13.