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PIK3C3 Antibody
Catalog # ASC11822

Specification

PIK3C3 Antibody - Product Information

Application	**WB**
Primary Accession	Q8NEB9
Other Accession	NP_002638, 34761064
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 91, 98 kDa** **Observed: 98 kDa KDa**
Application Notes	**PIK3C3 antibody can be used for detection of PIK3C3 by Western blot at 1 - 2 µg/ml.**

PIK3C3 Antibody - Additional Information

Gene ID **5289**

Target/Specificity
PIK3C3; PIK3C3 antibody is human, mouse and rat reactive.

Reconstitution & Storage
PIK3C3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
PIK3C3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PIK3C3 Antibody - Protein Information

Name PIK3C3 (HGNC:8974)

Synonyms VPS34 {ECO:0000305}

Function
Catalytic subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate; different complex forms are believed to play a role in multiple membrane trafficking pathways: PI3KC3-C1 is involved in initiation of autophagosomes and PI3KC3-C2 in maturation of autophagosomes and endocytosis (PubMed:14617358, PubMed:33637724, PubMed:7628435). As part of PI3KC3-C1, promotes endoplasmic reticulum membrane curvature formation prior to vesicle budding (PubMed:32690950). Involved in regulation of degradative endocytic trafficking and required for the abscission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed:<a

href="http://www.uniprot.org/citations/20208530" target="_blank">20208530, PubMed:20643123). Involved in the transport of lysosomal enzyme precursors to lysosomes (By similarity). Required for transport from early to late endosomes (By similarity).

Cellular Location
Midbody. Late endosome. Cytoplasmic vesicle, autophagosome. Note=As component of the PI3K complex I localized to pre-autophagosome structures. As component of the PI3K complex II localized predominantly to endosomes (PubMed:14617358). Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme (By similarity) {ECO:0000250|UniProtKB:Q6PF93, ECO:0000305|PubMed:14617358}

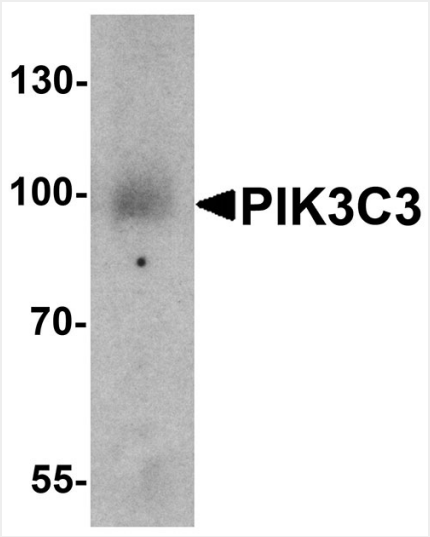
Tissue Location
Ubiquitously expressed, with a highest expression in skeletal muscle.

PIK3C3 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

PIK3C3 Antibody - Images



Western blot analysis of PIK3C3 in mouse small intestine tissue lysate with PIK3C3 antibody at 1 µg/ml.

PIK3C3 Antibody - Background

PI 3-kinase p100 (phosphoinositide-3-kinase p100 subunit), also known as hVps34 or PIK3C3 (phosphoinositide-3-kinase class III), is a member of the PI3/PI4-kinase family (1). It is a catalytic

subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate and ubiquitously expressed with a highest expression in skeletal muscle (1,2). PIK3C3 is involved in the endosome to lysosome transport and plays important roles in intracellular membrane trafficking and autophagy (3-5).

PIK3C3 Antibody - References

Stopkova P, Saito T, Papolos DF, et al. Identification of PIK3C3 promoter variant associated with bipolar disorder and schizophrenia. Biol. Psychiatry 2004; 55:981-8.
Hal BS, Gabernet-Castello C, Voak A, et al. TbVps34, the trypanosome orthologue of Vps34, is required for Golgi complex segregation. J. Biol. Chem. 2006; 281:27600-12.
Backer JM. The regulation and function of class III PI3Ks: novel roles for Vps34. Biochem. J. 2008; 410:1-17.
Jaber N, Dou Z, Lin RZ, et al. Mammalian PIK3C3/VPS34: the key to autophagic processing in liver and heart. Autophagy 2012; 8:707-8.