

**PIK3C3 Antibody**  
Catalog # ASC11822**Specification****PIK3C3 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q8NEB9</a>
Other Accession	<a href="#">NP_002638</a> , <a href="#">34761064</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 91, 98 kDa

Application Notes	Observed: 98 kDa KDa PIK3C3 antibody can be used for detection of PIK3C3 by Western blot at 1 - 2 µg/ml.
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**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°C for three months and -20°C, 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](http://www.uniprot.org/citations/14617358), PubMed: [33637724](http://www.uniprot.org/citations/33637724), PubMed: [7628435](http://www.uniprot.org/citations/7628435)). As part of PI3KC3-C1, promotes endoplasmic reticulum membrane curvature formation prior to vesicle budding (PubMed: [32690950](http://www.uniprot.org/citations/32690950)). Involved in regulation of degradative endocytic trafficking and required for the abscission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed: [32690950](#)).

<http://www.uniprot.org/citations/20208530> target="\_blank">20208530</a>, PubMed:<a href="http://www.uniprot.org/citations/20643123" target="\_blank">20643123</a>). 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

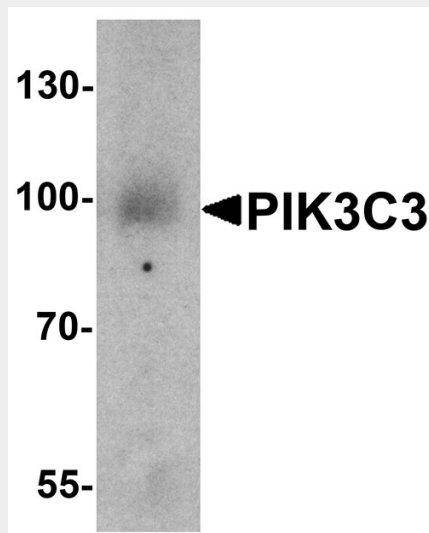
Ubiquitously expressed, with a highest expression in skeletal muscle.

### 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 Cytometry](#)
- [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.