Rabbit PI3KC3 Polyclonal Antibody | anti-PIK3C3 antibody

PI3KC3 Antibody (S34)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA285501	**Rabbit**	**Human (Predicted Reactivity: Mouse, Rat, Pig, Xenopus)**	**Immunohistochemistry, Western Blot, ELISA, Immunofluorescence**

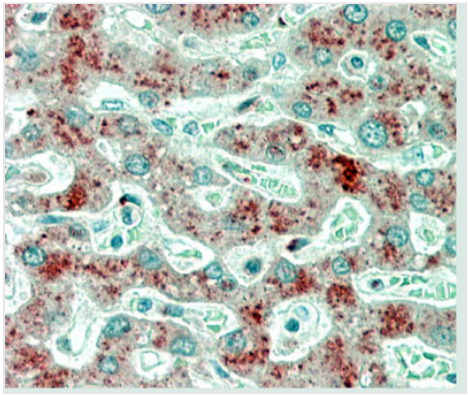
PRODUCT SYNONYMS

PI3KC3; Polyclonal Antibody; PI3KC3 Antibody (S34); Phosphatidylinositol 3-kinase catalytic subunit type 3; PI3-kinase type 3; PI3K type 3; PtdIns-3-kinase type 3; Phosphatidylinositol 3-kinase p100 subunit; Phosphoinositide-3-kinase class 3; hVps34; PIK3C3; VPS34; anti-PIK3C3 antibody

PRODUCT SPECIFICATIONS

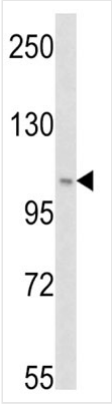
Host	Rabbit
Reactivity	Human (Predicted Reactivity: Mouse, Rat, Pig, Xenopus)
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This PI3KC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-39 amino acids from human PI3KC3.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Concentration	Vial Concentration: 0.5 (varies by lot)
Sequence Positions	14-39
Sequence Length	887
Applicable Applications for anti-PIK3C3 antibody	IHC (Immunohistochemistry), WB (Western Blot), ELISA, IF (Immunofluorescence)
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
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. Involved in regulation of degradative endocytic trafficking and required for the abcission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed: , PubMed:20208530). Involved in the transport of lysosomal enzyme precursors to lysosomes. 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 topre-autophagosome structures. As component of the PI3K complex II localized predominantly to endosomes (Probable) 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.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES

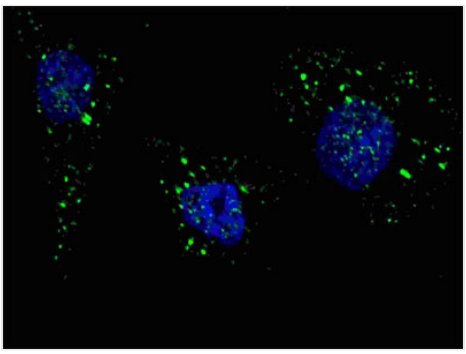


IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded H.liver tissue reacted with PI3KC3 Antibody (S34) (Cat#AAA285501).

IHC (Immunohistochemisry)
Formalin-fixed and paraffin-embedded human skeletal muscle tissue reacted with PI3KC3 Antibody (S34), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



WB (Western Blot)
Western blot analysis of PI3KC3 (S34) in Hela cell line lysates (35ug/lane). PI3KC3 (arrow) was detected using the purified Pab.



IF (Immunofluorescence)
Fluorescent image of U251 cells stained with PI3KC3 (S34) antibody. U251 cells were treated with Chloroquine (50 uM,16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AAA285501 PI3KC3 (S34) primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 ug/ml, 5 min). PI3KC3 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.

ADDITIONAL INFORMATION

Related Product Information for anti-PIK3C3 antibody	PI3KC3 is a catalytic subunit of the PI3K complex involved in the transport of lysosomal enzyme precursors to lysosomes. This enzyme acts catalytically to convert 1-phosphatidyl-1D-myo-inositol to 1-phosphatidyl-1D-myo-inositol 3-phosphate. Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole). The regulation of the Beclin 1-PI3KC3 complex lipid kinase activity is a critical element in the autophagy signaling pathway.
Product Categories/Family for anti-PIK3C3 antibody	Immunology; Metabolism; Signal Transduction; Autophagy

References	References for protein: 1.Vergne, I., et al., J. Exp. Med. 198(4):653-659 (2003). 2.Volinia, S., et al., EMBO J. 14(14):3339-3348 (1995). References for U251 cell line: 1. Westermark B.; Pontén J.; Hugosson R. (1973)." Determinants for the establishment of permanent tissue culture lines from human gliomas". Acta Pathol Microbiol Scand A. 81:791-805. [PMID: 4359449]. 2. Pontén, J.,Westermark B. (1978)." Properties of Human Malignant Glioma Cells in Vitro". Medical Biology 56: 184-193.[PMID: 359950]. 3. Geng Y.;Kohli L.; Klocke B.J.; Roth K.A.(2010). "Chloroquine-induced autophagic vacuole accumulation and cell death in glioma cells is p53 independent". Neuro Oncol. 12(5): 473-481.[PMID: 20406898].

NCBI AND UNIPROT INFORMATION

NCBI GI #	34761064
NCBI GeneID	5289
NCBI Accession #	NP_002638.2
NCBI GenBank Nucleotide #	NM_002647.3
UniProt Accession #	Q8NEB9; Q15134
Molecular Weight	101549
NCBI Official Full Name	phosphatidylinositol 3-kinase catalytic subunit type 3 isoform 1
NCBI Official Synonym Full Names	phosphatidylinositol 3-kinase, catalytic subunit type 3
NCBI Official Symbol	PIK3C3
NCBI Official Synonym Symbols	VPS34; Vps34; hVps34
NCBI Protein Information	phosphatidylinositol 3-kinase catalytic subunit type 3
UniProt Protein Name	Phosphatidylinositol 3-kinase catalytic subunit type 3
UniProt Gene Name	**PIK3C3**
UniProt Synonym Gene Names	VPS34; PI3-kinase type 3; PI3K type 3; PtdIns-3-kinase type 3
UniProt Entry Name	PK3C3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/pi3kc3-antibody-immunohistochemistry-western-blot-immunofluorescence-elisa/285501