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KD-Validated Anti-PIK3C3 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1656

Product Information

Application	WB, FC, ICC
Primary Accession	Q8NEB9
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB1150
Calculated MW	101549
Gene Name	PIK3C3
Aliases	Phosphatidylinositol 3-Kinase Catalytic Subunit Type 3; HVps34; Vps34; Phosphatidylinositol 3-Kinase P100 Subunit; Vacuolar Protein Sorting 34 Homolog; Phosphoinositide-3-Kinase, Class 3; PtdIns-3-Kinase Type 3; PI3-Kinase Type 3; EC 2.7.1.137; PI3K Type 3; Phosphatidylinositol 3-Kinase, Catalytic Subunit Type 3; Phosphoinositide-3-Kinase Class 3; EC 2.7.1; VPS34
Immunogen	A synthesized peptide derived from human PI 3 Kinase Class 3

Additional Information

Gene ID	5289
Other Names	Phosphatidylinositol 3-kinase catalytic subunit type 3, PI3-kinase type 3, PI3K type 3, PtdIns-3-kinase type 3, 2.7.1.137, Phosphatidylinositol 3-kinase p100 subunit, Phosphoinositide-3-kinase class 3, hVps34, PIK3C3 (HGNC:8974), VPS34 {ECO:0000305}

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, PubMed:33993848). 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: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). Also localizes 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.

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