10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-PIK3C3 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1656

Specification

KD-Validated Anti-PIK3C3 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q8NEB9
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 102 kDa , observed , 100 kDa KDa**
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**

KD-Validated Anti-PIK3C3 Rabbit Monoclonal Antibody - 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}

KD-Validated Anti-PIK3C3 Rabbit Monoclonal 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:<a href="http://www.uniprot.org/citations/14617358"

target="_blank">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: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}

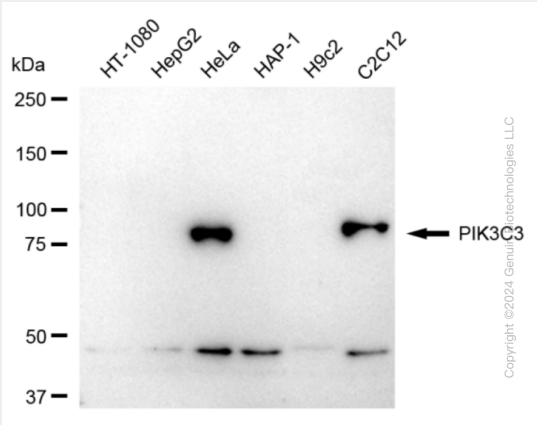
Tissue Location
Ubiquitously expressed, with a highest expression in skeletal muscle.

KD-Validated Anti-PIK3C3 Rabbit Monoclonal 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

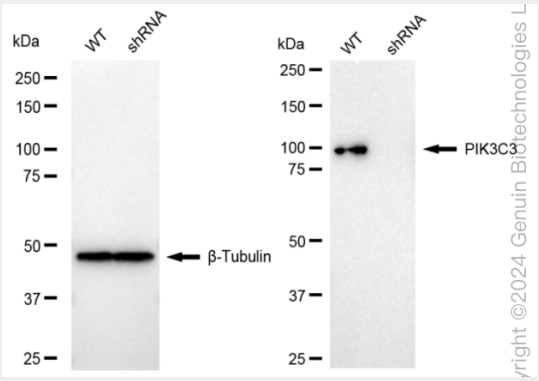
KD-Validated Anti-PIK3C3 Rabbit Monoclonal Antibody - Images



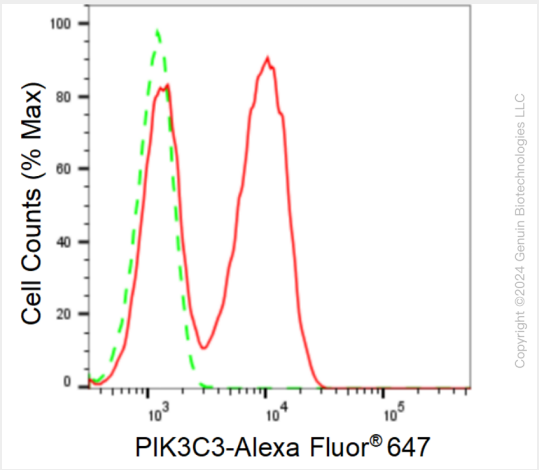
Western blotting analysis using anti-PIK3C3 antibody (Cat#AGI1656). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PIK3C3 antibody (Cat#AGI1656, 1:5,000) and HRP-conjugated goat anti-rabbit secondary

10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

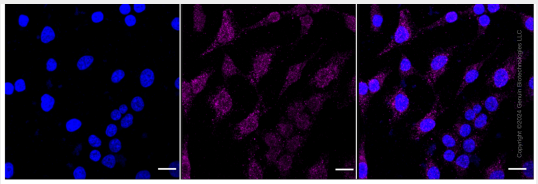
antibody respectively.



Western blotting analysis using anti-PIK3C3 antibody (Cat#AGI1656). PIK3C3 expression in wild type (WT) and PIK3C3 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-PIK3C3 antibody (Cat#AGI1656, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of PIK3C3 expression in HeLa cells using PIK3C3 antibody (Cat#AGI1656, 1:2,000). Green, isotype control; red, PIK3C3.



Immunocytochemical staining of HeLa cells with anti-PIK3C3 antibody (Cat#AGI1656, 1:1,000). Nuclei were stained blue with DAPI; PIK3C3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.