Mouse Anti-PI(3)P Antibody

Z-P003

Support: echelon@echelon-inc.com

Description:
Mouse monoclonal antibody against PI(3)P

Applications:
- ELISA - 1.0 µg/mL
- Protein-lipid overlay – 1.0 µg/mL
- IF/ICC – 5.0 µg/mL

Other in vitro and cellular applications are possible using this antibody but have not been verified by Echelon Biosciences.

Properties:
- Form – liquid
- Storage instructions – Store at 4 °C for up to 30 days. Aliquot and store at -20 °C if longer storage is necessary. Avoid repeated freeze/thaw cycles.
- Storage buffer – PBS, pH 7.4
- Concentration – see product label
- Purity – affinity purified using Protein A Sepharose
- Immunogen – PI(3)P conjugated to KLH
- Clonality – monoclonal; clone 31-12-9
- Isotype – IgG2a

Specificity:
Anti-PI(3)P reacts primarily with the head group of the indicated phosphoinositide (of synthetic or natural origin), but has some cross reactivity with other phosphoinositide depending on the assay format.)

Background:
Phosphoinositides (PIPns) are minor components of cellular membranes but are integral signaling molecules for cellular communication. Phosphatidylinositol 3-phosphate (PI(3)P) is enriched in early endosomes having roles in endosome fusion and receptor sorting and internalization in multivesicular bodies. PI(3)P has also been found at the plasma membrane and is involved in the translocation of the glucose transport protein GLUT4.

Data: Immunofluorescence

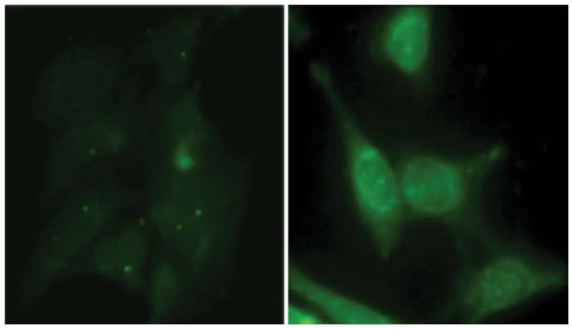

Image adapted with permission.
Confocal images of anti-PI(3)P stained cells untreated (left) or treated with insulin (right) prior to staining.

References:

1. Festa BP, Chen Z, Berquez M, Debaix H, Tokonami N, Prange JA, et al. (2018) Impaired autophagy bridges lysosomal storage disease and epithelial dysfunc- tion in the kidney. Nat Commun. 9(1):161.
2. Bhattacharjee S, Coppens I, Mbengue A, Suresh N, Ghorbal M, Slouka Z, et al. (2018) Remodeling of the malaria parasite and host human red cell by vesicle amplification that induces artemisinin resistance. Blood. 131(11):1234-47.
3. Sabha N, Volpatti JR, Gonorazky H, Reifler A, David- son AE, Li X, et al. (2016) PIK3C2B inhibition improves function and prolongs survival in myotu- bular myopathy animal models. The Journal of Clinical Investigation. 126(9).

Related Products:

Products	Catalog Number
Assays and Reagents	
Class III PI3K ELISA	K-3000
PI(3)P Shuttle PIP	P-9003
PI(3)P Mass ELISA	K-3300
Lipids and Antibodies	
PI(3)P	P-3008, P-3016
Bodipy FL, TMR PI(3)P	C-03F6, C-03M6

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