

Mouse Anti-PI(3,5)P₂ Antibody

Z-P035

Support: echelon@echelon-inc.com

Description:

Mouse monoclonal antibody targeting PI(3,5)P₂

Applications:

IF/ICC – 5-10 µg/mL^{1,3}

ELISA - not recommended

Lipid-Protein Overlay - not recommended

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 G agarose

Immunogen – synthetic PI(3,5)P₂ in liposome

Clonality – monoclonal; clone P(35) 31-10-1

Isotype - IgG2b

Specificity:

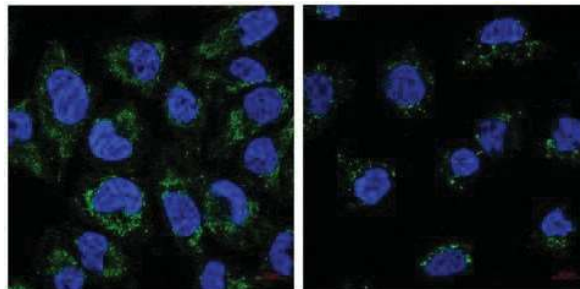
Anti-PI(3,5)P₂ reacts primarily with the head group of the indicated phosphoinositide, and demonstrates low cross-reactivity with other phosphoinositide or phospholipid depending on the assay format.

Background:

Phosphoinositides (PIPns) are minor components of cellular membranes but are integral signaling molecules for cellular communication. Phosphatidylinositol 3,5-bisphosphate (PI(3,5)P₂) has been shown to play a central role in a variety of cellular functions

such as endosomal homeostasis.

Data: Immunocytochemistry



A375 cells stained with Z-P035 (green) and DAPI (blue). Left panel = control/untreated, right panel = PIKfyve inhibitor, YM201636. Image adapted from Palušová et al.

References:

1. Palušová V, Renzová T, Verlande A, Václavová T, Medková M, Cetlová L, et al. (2020) Dual Targeting of BRAF and mTOR Signaling in Melanoma Cells with Pyridinyl Imidazole Compounds. *Cancers*. ;12(6):1516.
2. Notomi T, Kuno M, Hiyama A, Nozaki T, Ohura K, Ezura Y, et al. (2017) Role of lysosomal channel protein TPC2 in osteoclast differentiation and bone remodeling under normal and low-magnesium conditions. *Journal of Biological Chemistry*.
3. LIU, Y., Lai, Y.C., Hill E., Tyteca, D., Carpentier, S., Ingvaldsen, A., Vertommen, D., Lantier, L., Foretz, M., Dequiedt, F. et al. (2013) Phosphatidylinositol 3-phosphate 5-kinase (PIKfyve) is an AMPK target participating in contraction-stimulated glucose uptake in skeletal muscle. *Biochem. J.* 455,

Related Products:

Products	Catalog Number
Assays and Reagents	
PI(3,5)P ₂ PolyPIPosomes	Y-P035
PI(3,5)P ₂ Beads	P-B035a
PI(3,5)P ₂ Binding Protein	G-3501
Lipids	
PI(3,5)P ₂	P-3508, P-3516

