

# Echelon Biosciences Inc.

## Mouse Anti-PI(3,5)P<sub>2</sub> Antibody

Z-P035

Support: echelon@echelon-inc.com

### **Description:**

Mouse monoclonal antibody targeting PI(3,5)P<sub>2</sub>

### **Applications:**

- IF/ICC – 5–10 ug/mL<sup>1,3</sup>
- 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** – 1.0 mg/mL
- Purity** – affinity purified using Protein G agarose
- Immunogen** – synthetic PI(3,5)P<sub>2</sub> in liposome
- Clonality** – monoclonal; clone P(35) 1-8-2
- Isotype** – IgG2b

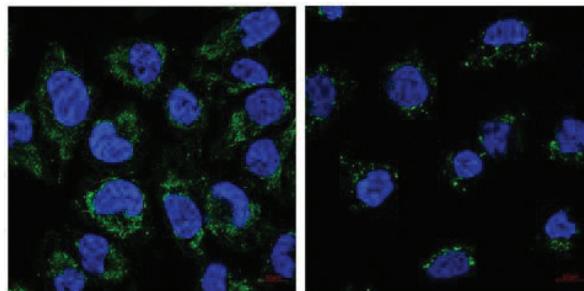
### **Specificity:**

Anti-PI(3,5)P<sub>2</sub> reacts primarily with the head group of the indicated phosphoinositide, and demonstrates low cross-reactivity with other phosphoinositides or phospholipids depending on the assay format.

### **Background:**

Phosphoinositides (PIPs) are minor components of cellular membranes but are integral signaling molecules for cellular communication. Phosphatidylinositol 3,5-bisphosphate (PI(3,5)P<sub>2</sub>) 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. 2020

### **References:**

1. Palušová V, Renzová T, Verlande A, Vaclová 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, 195–206.

### **Related Products:**

Products	Catalog Number
Assays and Reagents	
PI(3,5)P <sub>2</sub> PolyPIPosomes	Y-P035
PI(3,5)P <sub>2</sub> Beads	P-B035a
Lipids	
PI(3,5)P	P-3508, P-3516

Technical Data Sheet Rev. 6, 06-16-20 - For research use only. Not intended or approved for diagnostic or therapeutic use.



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