

# Echelon Biosciences Inc.

## Mouse Biotinylated Anti-PI(4,5)P<sub>2</sub> Antibody

Z-B045

Support: echelon@echelon-inc.com

### Description:

Biotinylated mouse monoclonal antibody against PI(4,5)P<sub>2</sub>

### Applications:

ELISA - 2.0 ug/ml  
Lipid-protein overlay - 1.0 ug/ml  
IF/ICC - 10 ug/ml  
Flow Cytometry - 10 ug/ml<sup>1</sup>

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 if longer storage is necessary. Avoid repeated freeze/thaw cycles.  
**Storage buffer** - PBS, pH 7.4  
**Concentration** - product is aliquoted at 0.5 or 1.0 mg/mL. Check label for lot specific information.  
**Purity** - affinity purified  
**Immunogen** - synthetic PI(4,5)P<sub>2</sub> in liposome  
**Clonality** - monoclonal; clone 2C11  
**Isotype** - IgM

### Specificity:

Biotin Anti-PI(4,5)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 4,5-bisphosphate (PIP<sub>2</sub>) has been shown to play a central role in a variety of cellular functions.

### References:

1. Cattley RT, Lee M, Boggess WC, Hawse WF (2020) Transforming growth factor  $\beta$  (TGF- $\beta$ ) receptor signaling regulates kinase networks and phosphatidylinositol metabolism during T-cell activation. *Journal of Biological Chemistry*.
2. Guaytima E, Brandán YR, Favale NO, Santacreu BJ, Sterin-Speziale NB, Márquez MG. (2018) Bradykinin mediates the association of collecting duct cells to form migratory colonies, through B2 receptor activation. *Journal of Cellular Physiology*.
3. Sengelaub CA, Navrazhina K, Ross JB, Halberg N, Tavazoie SF. (2016) PTPRN2 and PLC $\beta$ 1 promote metastatic breast cancer cell migration through PI (4, 5) P2-dependent actin remodeling. *The EMBO journal*. 35(1):62-76.
4. Marquez, M. G., C. Fernandez-Tome Mdel, et al. (2009). Bradykinin induces formation of vesicle-like structures containing vinculin and PtdIns(4,5)P<sub>2</sub> in renal papillary collecting duct cells. *Am J Physiol Renal Physiol* 297(5): F1181-91.

### Related Products:

Products	Catalog Number
Assays and Reagents	
PI(4,5)P <sub>2</sub> Mass ELISA	K-4500
PI(4,5)P <sub>2</sub> PIP Beads	P-B045a
PI(4,5)P <sub>2</sub> PolyPIPosomes	Y-P045
Lipids and Antibodies	
PI(4,5)P <sub>2</sub>	P-4508, P-4516
Anti-PI(4,5)P <sub>2</sub>	Z-P045

Technical Data Sheet Rev. 7, 05-27-20 - For research use only. Not intended or approved for diagnostic or therapeutic use.



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