

Echelon Biosciences Inc.

Mouse Anti-PI(3,4)P₂ Antibody

Z-P034b

Support: echelon@echelon-inc.com

Description:

Mouse monoclonal IgG antibody targeting PI(3,4)P₂

Applications:

IF – 5 ug/mL

Lipid-Protein Overlay – 0.5 ug/mL

ELISA – 0.5 ug/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 – 1 mg/mL

Purity – affinity purified

Immunogen – synthetic PI(3,4)P₂

Clonality – monoclonal


Specificity:

Z-P034b reacts primarily with the head group of the indicated phosphoinositide (of synthetic or natural origin), and demonstrates low cross-reactivity with other phosphoinositides or phospholipids depending on the assay format.

Background:

Phosphatidylinositol 3,4-bisphosphate (PI(3,4)P₂) is produced in stimulated cells by the action of phosphatidylinositol 3-kinases (PI3Ks) and/or lipid phosphatases (SHIP, TPTE, etc.). PI(3,4)P₂ binds the pleckstrin homology (PH)-domain of AKT/PKB leading to cell survival and it also has an important role in podosome formation near focal adhesions.

Data: PIP Strip (Echelon P-6001)

1. LPA		9. S1P
2. LPC		10. PtdIns(3,4)P ₂
3. PtdIns		11. PtdIns(3,5)P ₂
4. PtdIns(3)P		12. PtdIns(4,5)P ₂
5. PtdIns(4)P		13. PtdIns(3,4,5)P ₃
6. PtdIns(5)P		14. PA
7. PE		15. PS
8. PC		16. Blank

References:

1. Wang H, Lo W-T, Vujičić Žagar A, Gulluni F, Lehmann M, Scapozza L, et al. (2018) Autoregulation of Class II Alpha PI3K Activity by Its Lipid-Binding PX-C2 Domain Module. *Molecular Cell*. 71(2):343-51.
2. Li H, Wu X, Hou S, Malek M, Kielkowska A, Noh E, et al. (2016) Phosphatidylinositol-3,4-Bisphosphate and Its Binding Protein Lamellipodin Regulate Chemotaxis of Malignant B Lymphocytes. *J Immunol*. 196(2):586-95.
3. Kalasova I, Fáberová V, Kalendová A, Yildirim S, Uličná L, Venit T, et al. (2016) Tools for visualization of phosphoinositides in the cell nucleus.

Related Products:

Products	Catalog Number
Assays and Reagents	
PI(3,4)P ₂ PolyPIPosomes	Y-P034
PI(3,4)P ₂ Beads	P-B034a
PI(3,4)P ₂ Mass ELISA	K-3800
Lipids and Antibodies	
PI(3,4)P	P-3408, P-3416
Anti-PI(3,4)P ₂	Z-P034

Technical Data Sheet Rev. 5, 12-03-20 - For research use only. Not intended or approved for diagnostic or therapeutic



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