

Echelon Biosciences Inc.

Mouse Biotinylated Anti-PI(3,4,5)P₃ Antibody

Z-B345

Support: echelon@echelon-inc.com

Description:

Biotinylated mouse monoclonal IgM antibody against PI(3,4,5)P₃

Applications:

ELISA - 5.0 ug/mL
IF/ICC - 20 ug/mL²
IHC - 10 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 - 1.0 mg/mL
Purity - affinity purified
Immunogen - synthetic PI(3,4,5)P₃
Clonality - monoclonal; clone RC6F8
Isotype - IgM

Specificity:

Biotin Anti-PI(3,4,5)P₃ 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 (PIPns) are minor components of cellular membranes but are integral signaling molecules for cellular communication. Phosphatidylinositol 3,4,5-trisphosphate (PIP₃), formed from PI(4,5)P₂ though phosphorylation by PI 3-kinase, activates numerous signaling pathways resulting in cell proliferation, growth, survival, glucose transport and protein synthesis.

Data: Immunocytochemistry

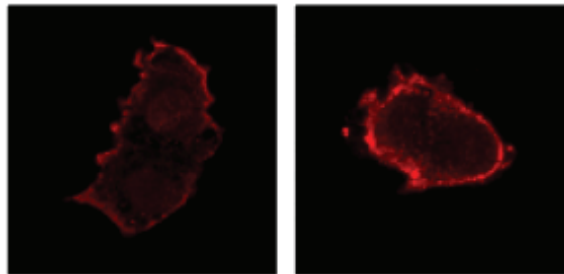


Image adapted with permission, Shearn et al.
Confocal images of anti-PI(3,4,5)P₃ stained HepG2 cells.

References:

1. Yi L, Chandrasekaran P, Venkatesan S. (2012) TLR signaling paralyzes monocyte chemotaxis through synergized effects of p38 MAPK and global Rap-1 activation. PLoS ONE. 7(2):e30404.
2. Shearn CT, Smathers RL, Stewart BJ, Fritz KS, Galligan JJ, Hail N, Jr., et al. (2011) Phosphatase and tensin homolog deleted on chromosome 10 (PTEN) inhibition by 4-hydroxynonenal leads to increased Akt activation in hepatocytes. Mol Pharmacol. 79(6):941-52.
3. Takahashi K, Tanaka T, Suzuki K. (2010) Directional control of WAVE2 membrane targeting by EB1 and phosphatidylinositol 3,4,5-triphosphate. Cell Signal. 22(3):510-8

Related Products:

Products	Catalog Number
Assays and Reagents	
PIP ₃ Mass ELISA	K-2500s
PI(3,4,5)P ₃ PolyPIPosomes	Y-P039
PI(3,4,5)P ₃ Beads	P-B345a
Lipids and Antibodies	
PI(3,4,5)P ₃	P-3908, P-3916
Anti-PI(3,4,5)P ₃ (IgM, IgG)	Z-P345, Z-P345b

Technical Data Sheet Rev. 5, 06-20-18 - For research use only. Not intended or approved for diagnostic or therapeutic use.



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