

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:

IF/ICC – 20 µg/mL²
IHC – 10 µg/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 – See product label

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 phosphoinositide or phospholipid depending on the assay format.

Background:

Phosphoinositides (PIPs) 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

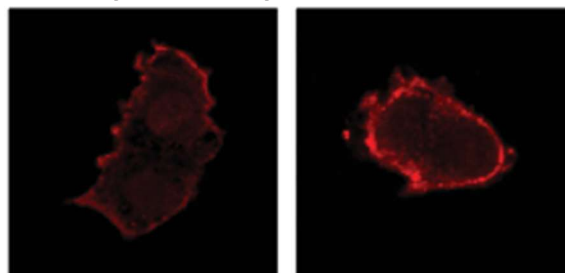


Image adapted with permission, Shearn et al.
Confocal images of anti-PI(3,4,5)P₃ stained HepG2 cells.

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-trisphosphate. Cell Signal. 22(3):510-8

Related Products:

Products	Catalog Number
Assays and Reagents	
PIP ₃ Mass ELISA	K-2500s
PI3-kinase Activity ELISA	K-1000s
SHIP2 Enzyme	E-1000
Lipids and Antibodies	
PI(3,4,5)P ₃	P-3908, P-3916
Anti-PI(3,4,5)P ₃ (IgM)	Z-P345 (purified) Z-B345 (biotinylated) Z-G345 (FITC labeled)